

SEP 27 Recd

MONTANA STATE
UNIVERSITY
LIBRARY
SEP 27 1954
RECEIVED

the American Perfumer

and ESSENTIAL OIL REVIEW

COSMETICS • SOAPS • FLAVORS



FOR CONVENIENCE, PROTECTION, SALES APPEAL **WIRZ** TUBES

ESTABLISHED 1936



PH & PALMER STREETS, CHESTER, PA.

New York 17, N. Y.
50 E. 42nd St.

Chicago 4, Ill.
80 E. Jackson Blvd.

Memphis 2, Tenn.
Wurzberg Bros.

Los Angeles 48, Calif.
435 S. La Cienega Blvd.

Havana, Cuba
Roberto Ortiz & Son

Export Division — 751 Drexel Bldg., Philadelphia 6, Pa.

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft
Metal Tubing • Household Can Spouts • Applicator Pipes • Compression-Injection Molding

UNGERER

Perfume Specialties



Rose Nocturne
Ungerer & Co.
Lilac Tuberose

161 Sixth Ave., New York 13, N.Y.
Plant and Laboratories: Totowa, N.J.

CHICAGO • BOSTON • PHILADELPHIA • ST. LOUIS • LOS ANGELES • ATLANTA



MYSORE SANDALWOOD OIL

SINCE 1913, when the Mysore Department of Industries was instituted, the industrial and agricultural development of Mysore has gone steadily ahead. Plans to develop Mysore's vast resources will continue a record of progress that has earned for Mysore its proud title of "The model state of India."



One of the most famous of Mysore's many products is Sandalwood—*Santalum Album* (Linné). Obtained from selected Mysore heartwood, Genuine Mysore Sandalwood Oil, distilled at our Linden, N. J., plant, is the chosen standard of purest quality by all leading Perfumers.

"Ye Oldest Essence Distillers"

W. J. BUSH & CO.

INCORPORATED

Essential Oils • Aromatic Chemicals • Natural Floral Products

19 WEST 44th STREET, NEW YORK 36, N. Y. • MURRAY HILL 7-5712

LINDEN, N. J. • NATIONAL CITY, CALIFORNIA • LONDON • MITCHAM • WIDNES

FROM THE FIELDS, FORESTS AND ORCHARDS
OF AMERICA COME THESE OUTSTANDING
FELTON ESSENTIAL OILS...

"THERE ARE NO FINER"



BRAND®

Grapefruit Cold Pressed	Limes Terpeneless
Grapefruit Distilled	Mandarin (Tangerine)
Grapefruit 5-Fold	Mandarin 5-Fold
Grapefruit Terpeneless	Orange California, Cold Pressed U.S.P.
Lemon California, Cold Pressed U.S.P.	Orange Florida, Cold Pressed U.S.P.
Lemon 5-Fold	Orange Distilled
Lemon Terpeneless	Orange 3-Fold
Lemon Sesquiterpeneless	Orange 5-Fold
Limes Distilled	Orange 10-Fold
Limes Expressed	Orange Terpeness
Limes 5-Fold	Orange Sesquiterpeneless

PIONEER

BRAND®

Birch, Sweet, U.S.P.	Peppermint Twice Rectified (Triple Distilled) U.S.P.
Cedarleaf U.S.P.	Peppermint Terpeneless
Cedarleaf American Not U.S.P.	Sassafras Natural U.S.P.
Cedarleaf Technical	Spruce
Cedarwood	Spearmint U.S.P.
Chenopodium N.F.	Spearmint Terpeneless
Dill Seed	Tansy
Dillweed	Wintergreen U.S.P.
Hemlock (Spruce)	Wormseed N.F.
Hops	Wormwood
Peppermint Natural	
Peppermint Rectified (Redistilled) U.S.P.	

Control of production, right from the source, is one of the most important reasons why Felton's Key Brand and Pioneer Brand Essential Oils, Terpeneless Oils and Concentrates are always uniformly "peak" quality and economically priced. Try any of these popular Felton oils . . . and you'll be quickly convinced "there are no finer!"



FELTON
Stocks Carried in
Principal Cities

ESSENTIAL OILS & AROMATICS

CHEMICAL COMPANY, INC.

599 Johnson Avenue, Brooklyn 37, N.Y.

PLANTS: Brooklyn, N. Y. • Los Angeles, Cal. • Montreal, Que.
Versailles (S & O) France—SALES OFFICES: Atlanta • Boston
Chicago • Cleveland • Philadelphia • St. Louis • Toronto

J. H. MOORE, Jr.
President

M. G. DE NAVARRE
Technical Editor

M. B. JACOBS
Flavor Editor

WM. LAMBERT
Editor

LEENDERT DRUKKER
Assistant Editor

LUCIAN NEFF
Advertising Director

SEWARD HEATON
Advertising Manager

MARILYN PIANO
Advertising Production Mgr.

E. C. JOHNSON
Circulation Manager

CHICAGO
Peoples Gas Building, Room
1328, Chicago 3, Ill. Harrison
7-7272

LOS ANGELES
McDonald-Thompson, Charles
D. Eidson, 3727 W. Sixth Street,
Los Angeles 5, Calif. Dunkirk
7-5391

SAN FRANCISCO
McDonald-Thompson, 625 Mar-
ket Street, San Francisco 5,
Calif. Yukon 6-0647

EDITORIAL AND EXECUTIVE
OFFICES
48 W. 38th St., New York 18,
N. Y. LOnacre 5-3320

PUBLISHED MONTHLY by Moore Publishing
Company, Inc. Publication office: Emmett St.,
Bristol, Conn., U.S.A. Editorial and Executive
Offices: 48 W. 38th St., New York 18, N.Y. J. H.
MOORE, Jr., President and General Manager;
MARG MACCOLLUM, Vice President; F. W.
NOLTING, Secretary. Subscription Rates: U.S.A.
and Possessions and Canada, \$4.00 one year;
50 cents per copy. Foreign, \$10.00 one year.
Entered as second class matter, January 12,
1950, at the Post Office at Bristol, Conn.,
under act of March 3, 1879.

Moore Publishing Co., Inc., is publisher also of
Advertising Agency, American Printer, Gas Age,
Gas Appliance Merchandising, Industrial Gas,
LP-Gas, and Laundry and Drycleaning Age.



Cable Address: Robinpub.
N. Y. Volume 64, Number
3 (Copyright 1954, Moore
Publishing Co., Inc.)



the American Perfumer and ESSENTIAL OIL REVIEW

COSMETICS • SOAPS • FLAVORS

Established 1906

CONTENTS • SEPTEMBER 1954

Research

- Newer Concepts of Lanolin Compositions . . . Lester I. Conrad, Ph.D. 177
Useful data revealed by research
- Cinnamates as Flavor Compositions Morris B. Jacobs, Ph.D. 215
Wide uses of esters as fruit and berry ingredients

Production

- Need for Skilled Aerosol Loader Arthur J. Wagner 185
Services necessary to insure proper packaging
- Genuine Old French Sweet Almond Oil Michel Bertia 192d
Properties and uses of this interesting oil
- Making Simple Floral Perfumes E. S. Maurer, F. C. S., R.I. 189
Patterns for compounding outlined

Management and Sales Promotion

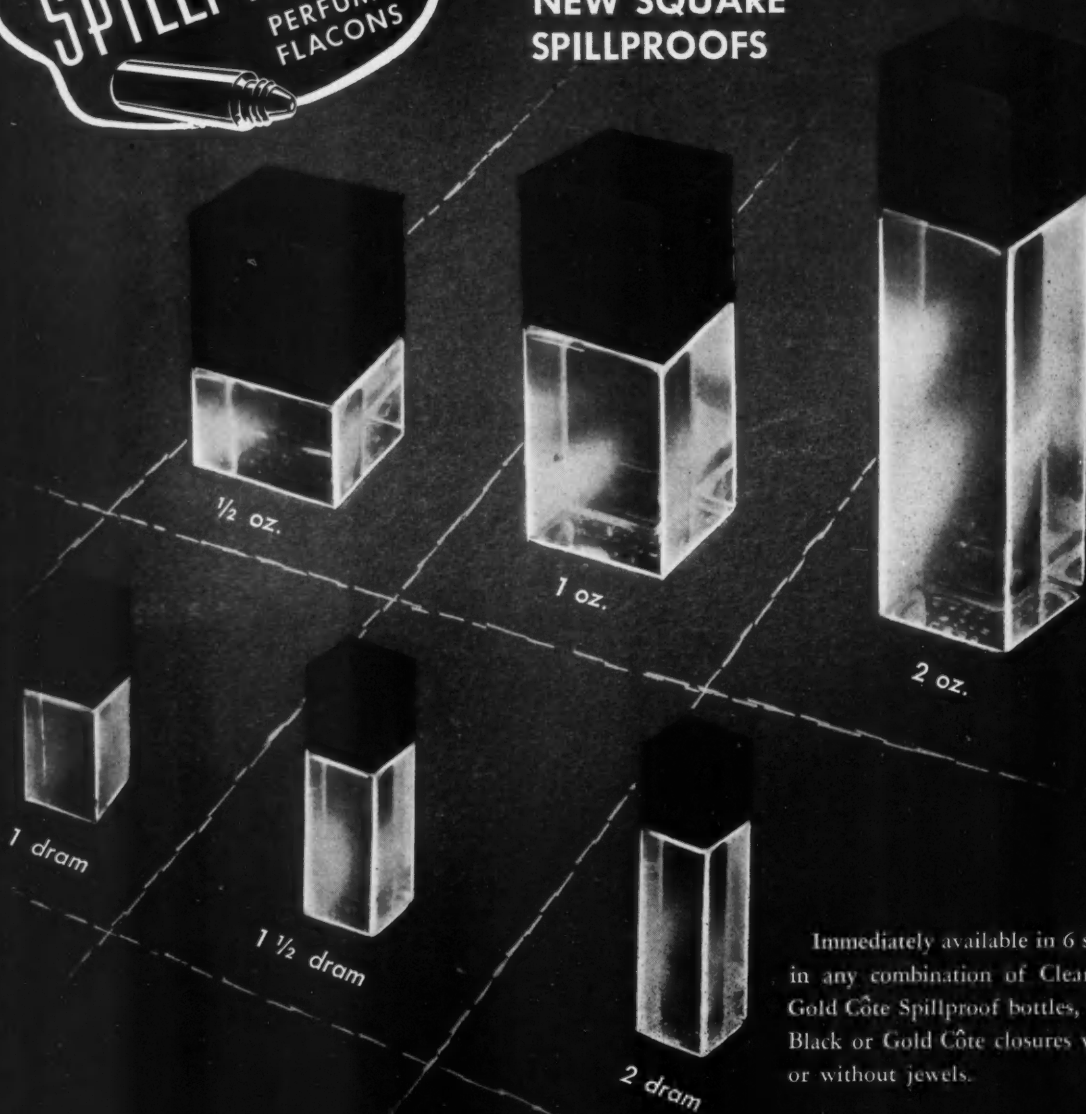
- Packaging for Self Service E. B. Weiss 198
Why and how the package must do a bigger selling job

Regular Features

- Desiderata Maison G. de Navarre 173
- Questions and Answers 175
- Christmas Packaging 205
- Editorial WE 207
- New Packaging and Promotions 209
- Chemical Abstracts 188
- New Products and Developments 223
- Hints for Improving Production 221
- Flavor Section 215
- Cosmetic Excise Tax Collections 197
- News and Events 225
- Market Report 233
- Prices in the New York Market 235
- Index to Advertisers 240



... have done their part
Now let your Imagination
Run Wild with these
**NEW SQUARE
SPILLPROOFS**



Immediately available in 6 sizes
in any combination of Clear or
Gold Côte Spillproof bottles, and
Black or Gold Côte closures with
or without jewels.

The smartest lines in 1954
will feature these sensational flacons.

Write today for samples and prices.

RICHFORD
CORPORATION
404 FOURTH AVENUE, NEW YORK 16, N. Y.

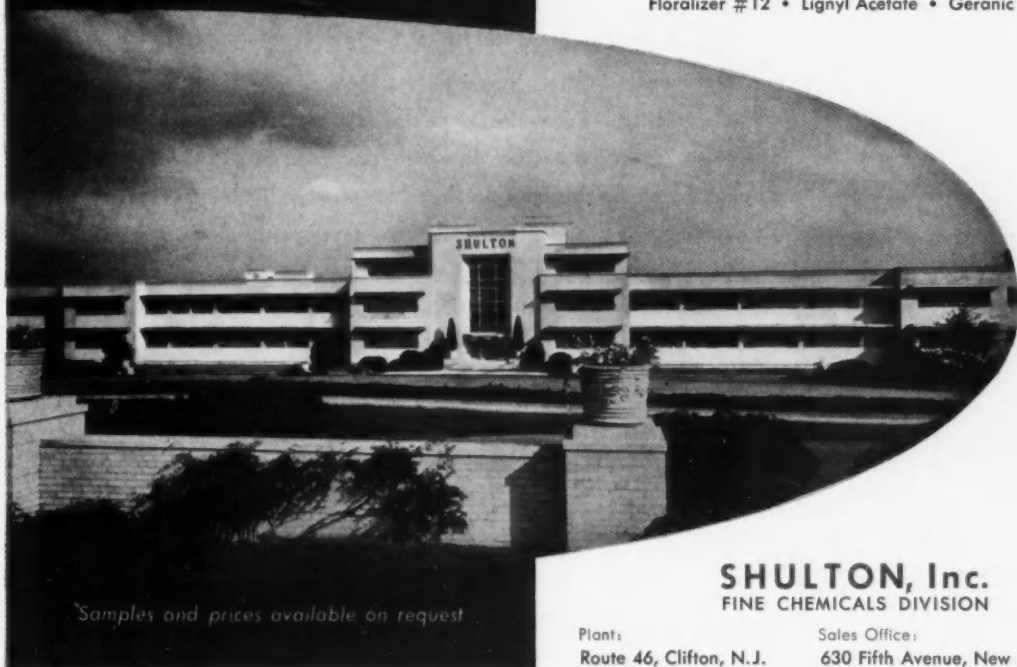
Look to
SHULTON
for new
chemical
achievements

***Rhodinol Shulton,** for example . . .*

- a true Rhodinol
- made by a new process
- with consistent odor and chemical character
- approximately half the cost to you of similar material ex Geranium Oil
- thus Shulton makes possible the use of a pure Rhodinol in innumerable formulas without prohibitive cost

Rhodinol Shulton is another successful product resulting from our extensive chemical research program. Among others now available are:

Vanitrope® brand of propenyl guaethol
Floralizer #12 • Lignyl Acetate • Geranic Ether



Samples and prices available on request

SHULTON, Inc.
FINE CHEMICALS DIVISION

Plant:
Route 46, Clifton, N.J.

Sales Office:
630 Fifth Avenue, New York 20, N.Y.

No. 4 of a series.



PERFUME THROUGH THE AGES



Perfume distilling operation, from a 15th century woodcut.

The advent of the Renaissance, that sweeping cultural re-awakening of Europe, also brought a momentous change to the art of perfumery. Prior to the 15th century, fragrances were primarily spicy in character... their most important application, apart from religious ritual, being to cover unpleasant odors. With the new cultural climate however, perfumes gained great popularity as decorations or adornments, and floral types became a prevailing vogue. The delicate flower fragrances still hold their traditional appeal, though cost often prohibits use of the absolute. In the D & O Perfume Laboratories, this problem is solved by the development of fine synthetics such as the beautiful new compound, JASMALIA. A Jasmin specialty of unusual character, JASMALIA recreates with authenticity the special properties of this important oil... one of the loveliest of our floral heritage.



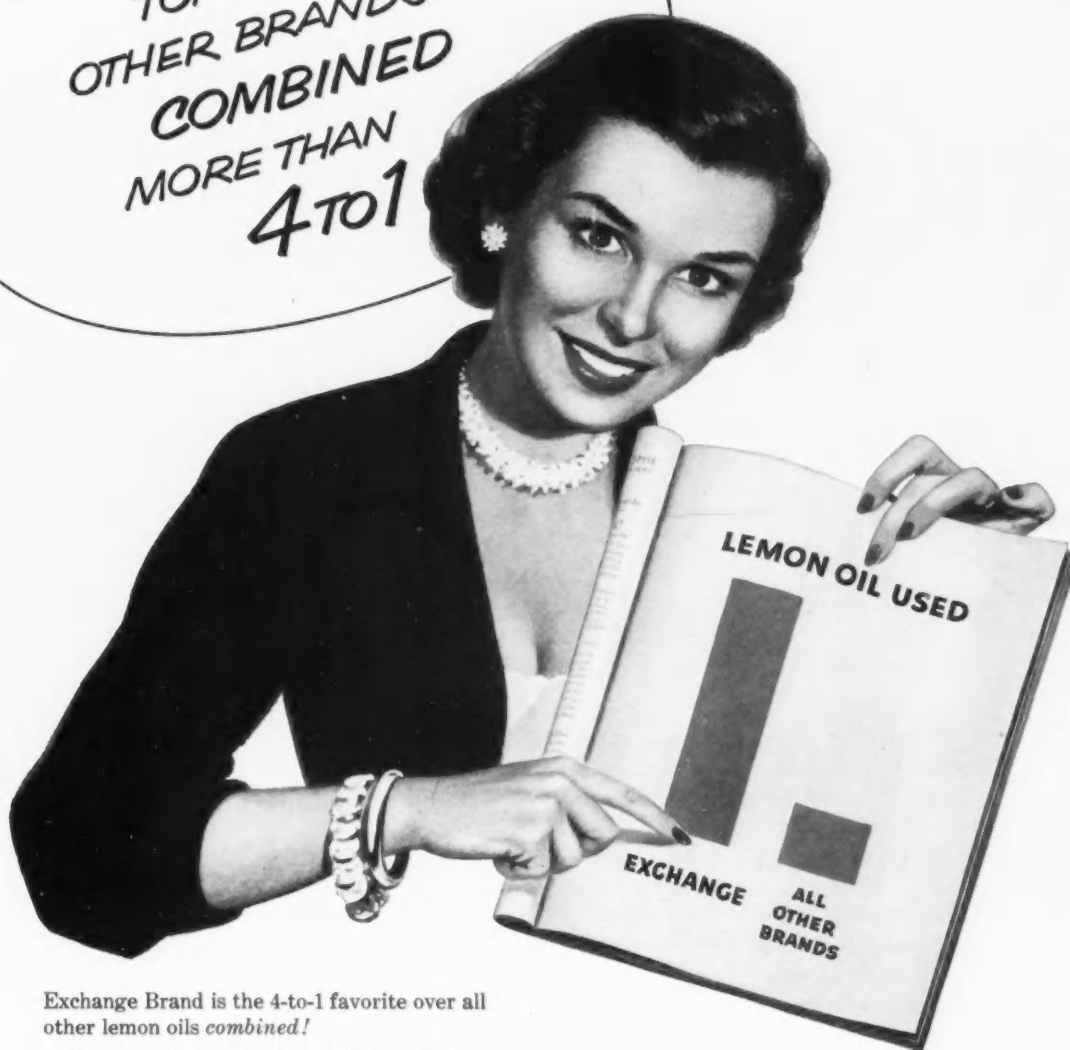
Our 155th Year of Service

DODGE & OLCOTT, INC.

180 Varick Street, New York 14, N. Y.
Sales Offices in Principal Cities

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES • FLAVOR BASES • DRY SOLUBLE SEASONINGS

TOPS ALL
OTHER BRANDS
COMBINED
MORE THAN
4 TO 1



Exchange Brand is the 4-to-1 favorite over all other lemon oils *combined*!

Year after year, Exchange Brand *quality* proves itself in sales. That's because Exchange Lemon Oil comes only from California lemons grown and skillfully processed by Sunkist Growers.

When a little lemon oil goes so far, why risk buying anything but the best?

Sunkist Growers

PRODUCTS DEPARTMENT • ONTARIO, CALIFORNIA

Produced by

Exchange Lemon Products Co. • Corona, California

DODGE & OLCOTT, INC.

180 Varick St., New York 14, N. Y.

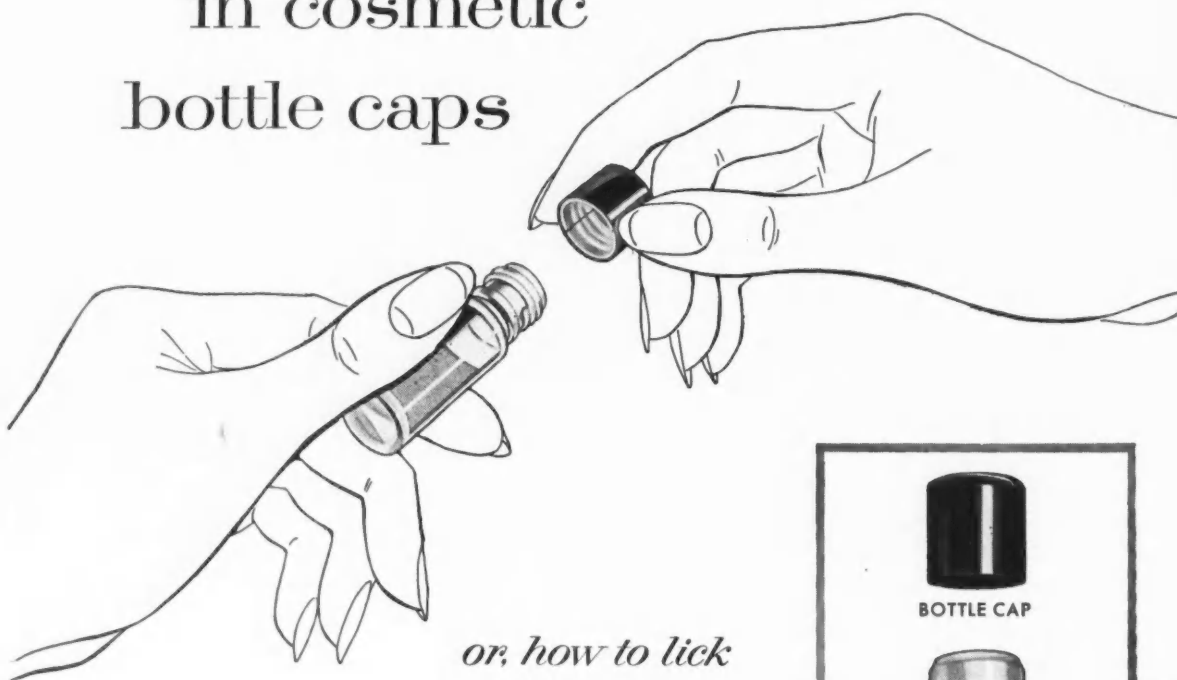
FRITZSCHE BROTHERS, INC.

76 Ninth Ave., New York 11, N. Y.

Exchange

OIL OF LEMON U. S. P.

Here's a brand-new idea in cosmetic bottle caps



*or, how to lick
an old problem*

SCOVILL DECIDED to do something about the cosmetic bottle cap problem. We got together with the Lumelite Corporation and developed a new polyethylene liner and a special cap to hold it.

This is a Grip-Tite, two-piece, concealed-thread cap, consisting of the metal outside shell and the threaded polyethylene insert. No internal liner for sealing purposes is required. In this cap, *the liner is part of the polyethylene inside shell.*

These caps are available in all the popular sizes from 13mm. to 24mm. They are ideal for both drug and cosmetic containers including spill-proof bottles.

This is a typical example of how Scovill is constantly working with its suppliers to develop new ideas in containers. And Scovill, *oldest supplier in the cosmetic container business*, has all the "know-how" to help *you* with any container problem you have.

Call us any time a problem comes up. We'll be more than glad to sit down and work it out with you.

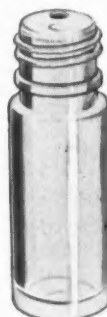


BOTTLE CAP



POLYETHYLENE
THREADED LINER

This Grip-Tite, concealed, polyethylene threaded liner fits inside metal cap.



COSMETIC CONTAINER

SCOVILL-MADE Containers

A product of **SCOVILL**

SCOVILL MFG. COMPANY, WATERBURY 20, CONN.

TOP NOTES

FLOWER of the Month

September—Aster or
Morning Glory

October—Calendula
or Cosmos



MAYBE
YOU
KNOW
HIM . . .

EXCEPT for his fast-moving four years with Uncle Sam—from enlisted Marine private in '42 to Captain in '46—under whose direction he "visited" Saipan, Tinian and Okinawa with final stopovers at Nagasaki and Kyusu, Japan, Rhode Island-born JERRY D'AMICO's residence, rearing and education have been within the New England territory which he has served so commendably as representative of Fritzsche Brothers for the past six years. Prior to this, Jerry had been a practicing pharmacist. He received his registration in pharmacy before his enlistment and in 1943 was awarded his B.S. in absentia by the Massachusetts College of Pharmacy. Based upon this solid background, Jerry's selling approach has just the right blend of dignity with warmth, polish with good humor and technical knowledge with practical understanding. In him, our Boston office has a representative of fine character and personal charm. Asked to give some of his life's highlights, Jerry enumerates these (but not in order of importance): his college years; his service experiences including the harrowing and almost successful sinking of his small attack transport by Japanese suicide pilots off Okinawa; his marriage to his charming and devoted wife, Phyllis, and the births of Karen Ann, Deborah Jane and, just in time to record here, Gerald, Jr., who arrived September 7, 1954; and finally, his good fortune in becoming associated with Fritzsche Brothers, Inc.



USE OF THERMOSTATICALLY-CONTROLLED OVEN
FOR DETERMINATION OF NON-VOLATILE RESIDUES

EVERY innovation in the technique of laboratory control is a step in the right direction. This is not only so from our point of view, but especially from the standpoint of the customer who has much to gain from the uniformity and dependability of the compounds and raw materials we supply him. In certain laboratory procedures involving the determination of non-volatile residues, the use of the thermostatically-controlled oven, shown above, insures more accurate and reproducible results. It is rule of thumb in all control operations that our laboratories employ the most up-to-date and efficient procedures available.

FRITZSCHE Established 1871
Brothers, Inc.

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES and *STOCKS: Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: Clifton, N. J.

FRITZSCHE BROTHERS, Inc.

FRITZSCHE BROTHERS, Inc.

Fritz **Fritz** *sche*

RECOMMENDATION of the **AMBRE CONCRETE**

This month's recommendation is a classic sweetness with excellent fixation proportion the same smooth, velvety finish of natural ambergris. It also blends woody-fruity notes typical of modern highly commend **AMBRE CONCRETE** a permanent and all-around fixative for extra. Priced at \$14.00 per lb.; \$1.00 for t

HAVE YOU GOTTEN ABOARD

POLYVINYLPYRROLIDONE is the amazing used in the critical last years of the war as an altogether different use for this abundant material of hair-set preparations. Due to its affinity for hair gives the coiffure a more natural sheen and resilience that ordinary hair lacquers do not imitate. Its obvious advantages, manufacturers failed to see. The fact that some of the perfumes became unstable under pressurant formulations. This necessitated a thorough study of such mixtures and the development of an emulsion under the conditions imposed. Our laboratories have now eager to get aboard the PVP bandwagon and are handicapped the original offerings (see next

CREATORS of MADE-TO-ORDER
for PERFUMES, TOILET
ODORANTS and DEODORANTS for
SUPPLIERS of AROMATICS
PERFUME and FLAVORS

FRITZSCHE
Bro

PORT AUTHORITY BUILDING, 76 NINTH

BRANCH OFFICES and STOCKS: Atlanta, Georgia, New York, Ohio, Cleveland, Ohio, Los Angeles, California, St. Louis, Missouri, Toronto, Canada and Mexico, D. F.

A THOUGHT for the Month
 "Kindness is the one commodity of
 which you should spend more than
 you earn."
 —T. N. TIEMEYER

Good Scents

FOR PERFUMERS



STABILIZED PERFUMES FOR THE NEW PVP HAIR LACQUERS

With the advent of PVP (Polyvinylpyrrolidone) hair fixatives, smart hair care has taken another hop, skip and a jump forward. Some producers have found that ordinary perfumes used in combination with these pressurized PVP solutions tend, in time, to change or weaken and lose character. Thus, for manufacturers already in or just entering this field, there is immediate need for a selection of fragrances that will provide stability of odor and be unaffected in any way by the pressurized PVP solutions. To fill that need, our perfume laboratories have created the following special fragrances, each carefully shelf-tested for balance and stability of odor. Trial samples may be obtained by filling in and returning the coupon below.

FLOWER BOUQUET	PVP	834	\$8.50 lb.
SWEET PEA	PVP	835	7.50 lb.
GARDENIA	PVP	836	5.25 lb.
BOUQUET	PVP	837	5.25 lb.
KASMA	PVP	858	7.00 lb.
ROSE	PVP	859	7.00 lb.

TRIAL OFFER: A kit of 1/2 oz. bottles of all SIX of these fragrances will be sent to you, prepaid, upon receipt of coupon below, properly filled in and accompanied by \$3.00 check or money order to cover cost of packaging and mailing.

of the Month

CONCRETE EXTRA

is a classical amber specialty of intense
 properties. It gives a perfume com-
 velvety finish that is produced by the use
 also blends well with the aldehydes and
 of modern perfume compositions. We
 CONCRETE EXTRA as a valuable compo-
 for extracts, colognes and toilet waters.
 1.00 for the trial ounce.

BOARD THE PVP BANDWAGON?

The amazing product of chemical research that was
 war as a substitute for natural blood plasma. An
 ndant material has now created a furor in the field
 affinity for moisture, PVP when sprayed upon the
 al sheen and holds it in place with a softness and
 do not impart. In the stampede to trade upon
 rs failed to take into account, however, the
 ame unstable when used in the PVP-aerosol
 ated a thorough study of the chemical actions
 nt of an entirely new type of perfume to meet
 ories have done this job for those who are
 ndwagon and avoid those difficulties that have
 (see next column).

DE-TO-ORDER FRAGRANCES
 OILETRIES and COSMETICS

ENTS for INDUSTRIAL and TECHNICAL USE

OMATIC CHEMICALS, BASIC
 FLAVOR RAW MATERIALS

THE Brothers, Inc.
 Established 1871
 76 NINTH AVENUE, NEW YORK 11, N. Y.

la, Georgia, Boston, Massachusetts, Chicago, Illinois, Cincinnati,
 California, Philadelphia, Pennsylvania, San Francisco, California,
 Mexico, D. F. FACTORY: Clifton, N. J.

PLEASE
 USE
 THIS
 COUPON

FRITZSCHE BROTHERS, Inc.,
 76 Ninth Ave., New York 11, N.Y.

Gentlemen: Kindly send me, prepaid, 1/2 oz. samples of all
 SIX of the fragrances listed above for use in PVP type hair
 preparations. \$3.00 (check or money order) is attached hereto.

NAME

TITLE

COMPANY

ADDRESS

CITY

ZONE

STATE



USE OF THERMOSTATICALLY-CONTROLLED OVEN
FOR DETERMINATION OF NON-VOLATILE RESIDUES

EVERY innovation in the technique of laboratory control is a step in the right direction. This is not only so from our point of view, but especially from the standpoint of the customer who has much to gain from the uniformity and dependability of the compounds and raw materials we supply him. In certain laboratory procedures involving the determination of non-volatile residues, the use of the thermostatically-controlled oven, shown above, insures more accurate and reproducible results. It is rule of thumb in all control operations that our laboratories employ the most up-to-date and efficient procedures available.

FRITZSCHE

Established



1871

Brothers, Inc.

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES and *STOCKS: Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: Clifton, N. J.

YOU BET

"YOU grown-ups just can't smell like me! And when you feel . . . No doubt baby has a peace and taut nerves and strained greatly minimized by masking appropriate flavors. Considering all regarding the applications and the pharmaceutical manufacture for flavor improvement in

For GOOD TASTE

in Pharmaceuticals Consumables



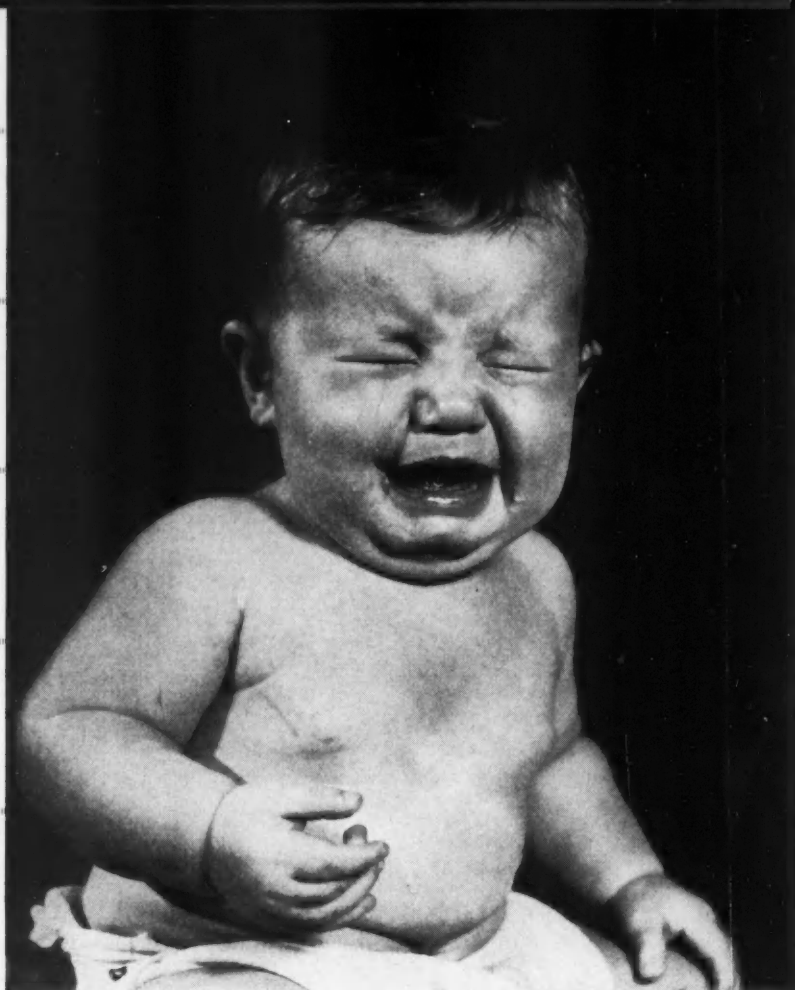
ET I'M UNHAPPY

can't seem to understand how bad a nasty old
when you force me to take it, how else can I say I
has a point which all medicine makers should v
trained tempers that so often result from hor
masking their products' bad tasting ingredien
ering all the new knowledge today's flavor spec
ons and compatibilities of medicinal flavorings
manufacturer's product to be anything but palatal
ent in *your* products, it's quite possible our fl

Consult... **FRITZSCHE**
Br

PORT AUTHORITY BUILDING, 76 NINTH

BRANCH OFFICES and *STOCKS: Atlanta, Georgia, Bo
Ohio, Cleveland, Ohio, *Los Angeles, California, Phil
St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F.



YOU BET I'M UNHAPPY!

"YOU grown-ups just can't seem to understand how bad a nasty old medicine tastes to a little fellow like me! And when you force me to take it, how else can I say I don't like it except to cry?"

. . . No doubt baby has a point which all medicine makers should well ponder because the tears and taut nerves and strained tempers that so often result from home episodes like this can be greatly minimized by masking their products' bad tasting ingredients with pleasant and appropriate flavors. Considering all the new knowledge today's flavor specialists have accumulated regarding the applications and compatibilities of medicinal flavorings, there is just no excuse for the pharmaceutical manufacturer's product to be anything but palatably pleasing. If there is room for flavor improvement in *your* products, it's quite possible our flavor experts can help you.

For GOOD TASTE

in Pharmaceuticals Consult . . .

FRITZSCHE

Established  1871

Brothers, Inc.

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES and *STOCKS: Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: Clifton, N. J.



The Fifth Sense (Olfactive sense)

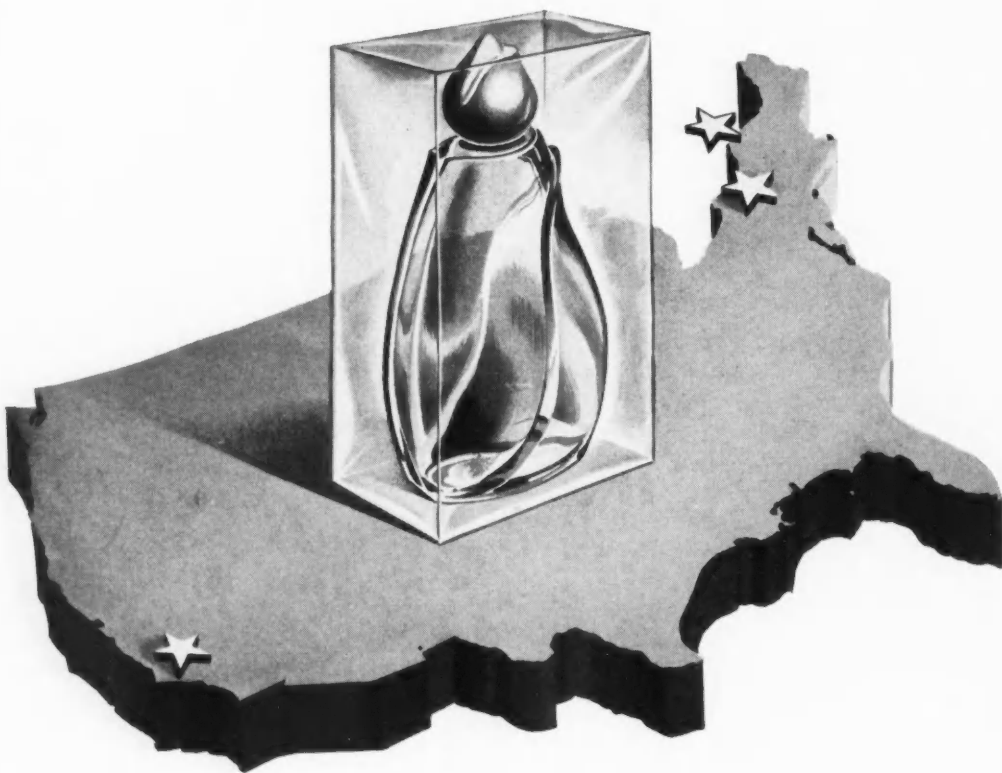
Since 1768, or nearly 200 years, the House of Chiris has dedicated itself to the Fifth Sense—the olfactive sense. In the development of Essential Oils, Floral Absolutes, Chemical Isolates, Synthetic Chemicals, and all of those creations and specialties which combine industrial aromatics with natural products and produce fragrance, the House of Chiris has a cherished history. Today Chiris maintains laboratories headed by experienced olfactive chemists who have available to them not only the “know how” of generations of Chiris chemists but also the research facilities of three continents and four modern laboratories located in: FRANCE—GRASSE & PARIS; GREAT BRITAIN—LONDON; BRAZIL—SAO PAULO and NEW YORK CITY. Whether Essential Oils, Isolates, or combinations thereof, are used as fragrance constituents by the perfumery, soap, cosmetics, or allied industries, we are happy to be consulted.

ANTOINE CHIRIS CO. INC.

220 East 23rd Street, New York 10, N. Y.

GRASSE • PARIS • LONDON • SAO PAULO

* Chemical Senses, page 1, Moncrief—lists senses as follows: “sight, hearing, touch, taste, smell.” Note smell is listed Fifth.



FROM COAST TO COAST

Famous brands of fine cosmetics

turn to AVON for manufacture and packaging

Your first consideration in the production of your own brand of cosmetics and toiletries is the quality and reliability of the company which manufactures them for you.

Long experience and the strictest quality standards have gained Avon a position of leadership in the making and packaging of many private brands doing business from the Atlantic to the Pacific.

You can broaden your sales scope on the cosmetics you now manufacture or on new

products, without added equipment investment, by entrusting the handling of production to the Private Brand Division of Avon Products, Inc. Modern, well-equipped laboratories in Suffern, (N. Y.), Pasadena (Cal.), and Montreal (Canada) are ready to serve you. Avon's specialized skill and over 60 years of experience include every phase of cosmetic and toiletry production.

Join the other famous brands relying on Avon. Call or write for full information.

Avon Products INC.

PRIVATE BRAND DIVISION

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

Strategically located laboratories in Suffern, New York • Pasadena, California • Montreal, Canada

Fragrant Beauty

helps determine
the success
of your product.



The constant creative effort
of the Synfleur laboratories
enables us to supply the
original compositions, aromatic
bases and other necessary perfume
materials to solve any problem
you may have.

Over 64 years of growth is proof
of the success of this effort.



Synfleur SCIENTIFIC LABORATORIES, INC.
MONTICELLO, N. Y.

Founded 1889 by Alois Von Jauchovics

ATLANTA • DETROIT • NEW YORK • HAVANA • RIO DE JANEIRO • MEXICO, D. F. • Chicago • Melbourne • Burma • Hong Kong • Bogota • San Jose
Ciudad Trujillo • Guayaquil • Guatemala • Calcutta • Wellington • Managua • Panama • Asuncion • Manila • San Salvador • Montevideo
SAGUA, Herman & Lail • 637 Craig Street West • Montreal, Quebec

Our opal jars display to good advantage because they are exceptionally white and opaque. They can be supplied in a wide variety of sizes either plain or with fired-on ceramic labels.



**CARR-LOWREY
GLASS CO.**

Designers and manufacturers of fine glass containers

Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

Desiderata

BY MAISON G. DENAVARRE, F.A.I.C.

Manufacturing Vanishing Cream

Mr. M. G. deNavarre
The American Perfumer

I am astonished about the publication of the article "Manufacturing Vanishing Cream" (particularly in warm climates) in your April, 1954 edition and would like to draw your attention to some facts.

(a) The formula Nr.4 calls for potassium hydroxide and triethanolamine. It is a stated fact that creams using a combination of a strong alkali and triethanolamine have a tendency to separate water. I know from my own experience and this is also stated by Janistyn in the "Kosmetik der Haut." A much better way to harden the cream a bit is to combine triethanolamine and borax.

(b) The glycerin content is much too low especially for warm climates. In these climates the modern formulas call for about 5% glycerin and for 10-12% Sorbitol (which would not appear in the ash contents). This will keep the cream for a longer storage period. For easy dispersibility of the cream an addition of 1-2% of ethyl alcohol is indicated but which is omitted in every formula of this article. With reference to the "sheen" I would like to add that putting the cream through a homogenizer the day after manufacturing brings the sheen out if the cream has been manufactured *lege artis*.

I have made samples which kept well on a shelf for observation for over one year. If an homogenizer is not available, the addition of some alcohol helps to laminate the stearic acid which forms the sheen.

I beg to remain, Sir

Yours truly,
s/ Herbert C. Janowitz

THE AMERICAN PERFUMER reprinted the article by Shukla from THE INDIAN SOAP JOURNAL, to show how *one* technician went about the business of duplicating vanishing creams. Since only the author knows the brand names of the products

tested, we must accept his analysis as being correct.

This writer doesn't recommend the use of potassium carbonate in ordinary vanishing creams, but in so-called "snows" it is undoubtedly useful.

By U. S. standards, the stearic acid content is too high. Depending on the end use of the vanishing cream formulated, the glycerin content of 5% and 4% is not too low although many U. S. vanishing creams contain from 10-15% mixed polyols. Shukla uses glycerin probably because it is more readily available than propylene glycol, sorbitol syrup or other polyols. One can't argue with such a selection.

As for pearliness, the consensus is that the type of stearic acid used plays a vital role. The writer has found this to be so on numerous occasions.

The use of either ammonia (now almost never done), potash or triethanolamine, alone or in combination usually results in fine pearliness. Even the cautious use of soda with either of the above will still produce a pearly stearate cream.

We do not agree with either Janistyn or Janowitz that the use of a combination of potash and triethanolamine produces water separation from creams. We would be interested in the findings of other workers who have used this combination. Our own experience is limited to certain types of formulations, which never showed water separation. If the proper amount of alkali is used, the emulsion should be uniform and stable.

We do believe that there are differences in "tastes" in stearate creams and

all toiletries, between the warmer and the cooler climates. On this point we agree with Janowitz.

THE AMERICAN PERFUMER is always glad to hear from readers and to explain its reasons for publishing any editorial material.

M. G. deNavarre, Technical Editor

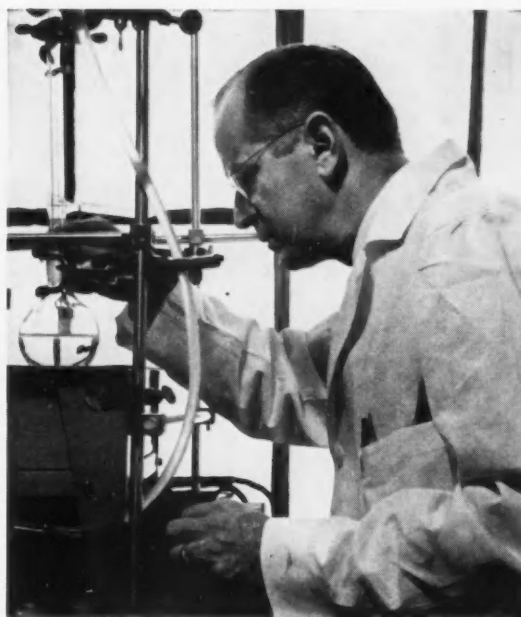
Lanolin Solutions

We get many requests for formulas intended to duplicate a well known colloidal solution of lanolin. To begin with, we do not know the composition of the product. But we do know that it is covered by U. S. Patent 2,498,727, dated February 28, 1950, applied for November 23, 1946.

This patent covers the use of "organic esters of alcohols having from 2 to 5 chain carbon atoms either normal, secondary or tertiary, coupled with higher molecular weight fatty acids, saturated or unsaturated, ranging from 12 to 19 carbon atoms. Illustrative of such esters are isopropyl palmitate, isopropyl stearate, and isopropyl linoleate."

Claim I states the following: "A thin, stable homogeneous solution having a large lanolin content for cosmetic use on the skin consisting of 35 parts of lanolin, 53 parts of isopropyl palmitate, 10 parts of refined mineral oil and 2 parts of waxes."

Since the issuance of the above patent to Verblen, another patent, U. S. No. 2,661,316, has been granted to Martini. This patent covers a liquid cosmetic comprised of 20-60 per cent



**Mister—
you've got a
good line....**



Naturally good with
ORBIS Series No. 600
perfume concentrates

Orbis odors work like a charm to give your line of perfumed products more customer come-on with a big cost come-down. Take Series No. 600, for example. Here's honest quality to rely on—uniform low prices—and 30 "nose-worthy" Orbis odors to choose from.

Write to Orbis for manufacturers' samples, and ask for your catalogue of all good Orbis products.

**CHOOSE FROM THESE ORBIS ODORS AT THE
LOW ORBIS PRICES**

Bouquet CH	Divinia	Millefleurs
Bouquet de Oriente	Florida	Muguet
Bouquet Kashmiri	Gardenia	Narcisse
Bouquet Parisienne	Heliotrope	Neroli
Bouquet TB	Honeysuckle	New Mown Hay
Chypre	Jasmin	Oriental
Cologne	Jockey Club	Rose
Corylopsis	Lavender	Sweet Pea
Crechene	Lilac	Violet
Cuir de Russie	Magnolia	Wistaria

PRICES ALWAYS UNIFORM

25 lb. cans	\$6.00 per lb.
5 lb. bottles	6.15 per lb.
Trial Pounds	6.25 per lb.

OTHER ORBIS PRODUCTS

ESSENTIAL OILS	AROMATIC CHEMICALS
PERFUME BASES	COSMETIC RAW MATERIALS
FRUIT FLAVORS	WATER SOLUBLE GUMS
	OLEO RESINS

Right—
under your nose



ORBIS
PRODUCTS
CORPORATION

NEW YORK
CHICAGO
BOSTON
MEMPHIS

601 W. 26th STREET
NEW YORK

by weight of lanolin and more than 10 per cent by weight of an unsaturated fatty alcohol, such as oleyl or linoleyl alcohol, with the remainder made up of various mineral or/and vegetable oils, etc. A sample formulation contains: 35 per cent lanolin, oleyl alcohol 12 per cent, antioxidant 0.05 per cent, perfume oil 0.4 per cent and peanut oil 52.55 per cent by weight.

So, when experimenting with lanolin solutions in oil, keep in mind the existence of these two patents.

Notes

Goldman and Baskett have just published some results on the use of EDTA complex as a hair rinse. . . . They used 80 patients and report unusually good results for both hair and scalp. . . . A trisodium salt was used. . . . The *Harvard Business Review* runs a story on "How Much Should a Company Spend on Research?" . . . On the basis of net sales, drug manufacturers spent in 1951, 3.1 per cent (68 firms reporting); motor vehicles and parts 0.6 per cent

(26 companies reporting); foods and related products with 69 companies reporting, spent 0.2 per cent; many others are reported, but not cosmetics; average of all 1,450 companies reporting is 0.9 per cent of net sales. However, on the basis of profits, the petroleum industry spent 3.1 per cent of profits before taxes while drug companies spent 16.5 per cent of profits before taxes. This study has a lot of other interesting and thought provoking data. . . .

Organic Titanates

So many new organic derivatives of titanium have been developed and offered that it behooves the industry to look closely at them. Most of them hydrolyze in water to give the oxide and organic derivative. One can conjure numerous possible applications. Skin sensitizing or toxicological studies will have to be carried out on the titanates or the products of hydrolysis. But that is a side issue easily solved if there is usefulness for the materials.

the polyol glycol stearates and the solubilized lanolins are also used for the purpose. Sources are being mailed to you.

1090: Lanolin Liquid

Q. We are interested in knowing how to put lanolin in a permanent liquid type form and would appreciate any information you may give us. Also, who is the owner of the patented process?

T. G. S., New York

A. Three suppliers make a liquid type lanolin, which you should investigate. Their names are mailed to you separately. The patented process is now used by a Chicago company. It is our understanding that they have exclusive rights under a patent invented by Verbelin.

1091: Metallic Nail Polish

Q. Could you please advise us what ingredients are added to colorless clear nail enamel to give a "Gold" nail enamel? We should very much appreciate your cooperation.

R. S. P., Pennsylvania

A. To get gold or silver effects in nail polish, it would be our guess that you should use one of the gold flake materials which we understand are based on aluminum. Of course, the silver products are also based on aluminum. These would be dispersed as pigments in your nail polish base.

1092: Solid Powder

Q. Do you have a formula available for the manufacture of a solid powder compact similar to the type exemplified by Pond's "Angel Face" or can you direct me to some literature concerning such a product? I would greatly appreciate your assistance.—A.M.S., France

A. Regarding a formula for a product similar to Pond's Angel Face, we are sorry to have to tell you we know little about this except that it is a compressed variation of face powder. It appears to contain none of the gum binders but depends on a procedure or another composition for what ever binding properties are present. The covering power seems to be slightly more than other face powder, but otherwise has all the qualities of face powder that one might want. As for equipment to process and make, off hand, we would say that all the equipment used in the manufacture of face powder would be required. In addition, stamping or molding equipment would also be required. Suppliers of this type of equipment could undoubtedly give you some idea of pressures necessary.

Questions & Answers

1087: Hair Coloring

Q. We are anxious to gather information regarding formulation of a product similar to Roux Color Shampoo. This is a new type of hair dye; it lightens hair as well as dyes it a new color. Can you supply us with the name of any manufacturer who may make the basic chemicals and thus be able to give us a basic formula? Perhaps you can help us with a formula on the above. We enclose a stamped self-addressed envelope.

T.E.M., Florida

A. The type of hair coloring you mentioned is very secret in composition. However, we suggest that you contact Evans Chemetics, Inc., 250 East 43rd St., New York 17, N.Y., who have supplied this kind of product under private label.

1088: Paste Formulation

Q. In preparing a temporary filling, a dentist often makes a paste of zinc oxide and eugenol and places this in a cavity, and this hardens into a filling that sometimes lasts for many weeks. I would like to make a paste of the above materials that could be dispensed from a tube like toothpaste.

The problem is what the above materials (eugenol and zinc oxide) can be mixed with so that they would form a paste that would not harden in the tube, and at the same time would harden within a few minutes on exposure to the air, after being squeezed from the tube.

L. G. A., Rhode Island.

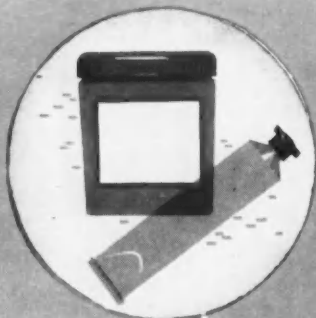
A. We are sorry we are not in a position to help you with your dental filling problem. This is completely out of our line. The problem you pose is the same as saying "I would like to mix water with sand and cement and have it stay plastic until it was squeezed out of a tube." The same holds true for zinc oxide and eugenol turning hard shortly after mixing.

1089: Shampoo Conditioners

Q. I would like to have information on conditioners in shampoos, especially the long chained amides. Could you also give me the names of some suppliers?

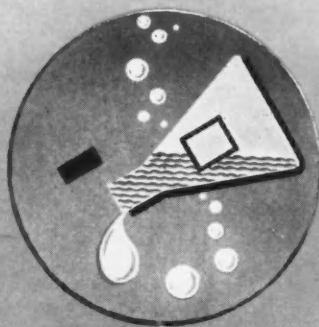
M. C. Canada

A. There are many kinds of conditioners in shampoo and some of these are discussed in the reprint sent to you under separate cover. Among the long chain amides, there are a number of companies making them. In addition,



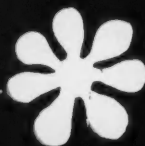
PASTE

WA-Paste, WAQ, WA-Special, smooth creamy texture, rich pearl lustre. For paste or liquid creme shampoos, rubber processing, textile cleaners, etc.



LIQUID

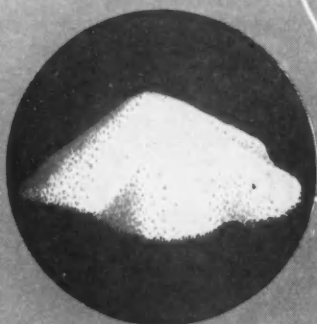
WAT... Triethanolamine neutralized, ideal for clear liquid shampoos, bubble baths, liquid dishwashing detergents.



stepanols LAURYL SULFATES

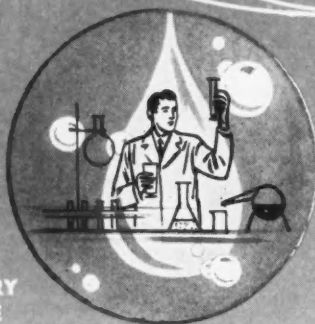
RIGID UNIFORMITY...

SUPERB COLOR



POWDER

Recommended for pharmaceutical, and cosmetic uses. Highest quality, purity, with rigid uniformity.



LABORATORY ASSISTANCE

Complete laboratory facilities are available to help you in developing your product.

Instantly Soluble

High Initial Foam

Close Bodied Creamy Foam

Excellent Foam Stability

Free Rinsing

Write for Literature and Samples

THE

STEPAN

CHEMICAL CO.

3250 So. Kedzie Avenue
Chicago 23, Illinois

Wetkamp, in his work which will be detailed later. Neutral wool fat as analyzed by Drummond & Baker and our laboratory is the most desirable for lanolin production since very little treatment is needed outside of improving color and odor. Data for British refined lanolin as published by Lowry and by Hemmings, are listed along with that for six American lanolins, three from each of two producers, which were analyzed in our laboratories.

The analysis of lanolin usually consists of chemical determinations of acid number, saponification number, and iodine number in addition to the physical properties required. The hydroxyl number which is a measure of free hydroxyls has not been considered very important in the past and was rarely determined. The importance of the hydroxyl number will become evident in the later part of this paper.

Newer Concepts of Lanolin Composition

Even careful study of the analytical data does not shed much light on the composition of lanolin. For instance, the iodine number indicates that some unsaturation is present, but doesn't tell in what part of the ester the double bond is located. The hydroxyl number is indicative of free hydroxyl groups but doesn't tell us whether these are present on free alcohols or on hydroxyesters, and the saponification number indicates the presence of esters but tells us nothing of their structure.

The elucidation of the chemical structure of the various components which form lanolin has been attempted by many investigators and has been quite successful. The United States Pharmacopoeia described lanolin as a purified fat-like substance which is obtained from the wool of sheep. This brief description does not reveal the complexity of lanolin which is really a wax rather than a fat. It was a complex mixture of esters formed in nature by the union of higher alcohols and higher fatty acids. They are characterized by a relatively low saponification number, no high percentage of unsaponifiable matter, and the complete absence of glycerol.

Technical Director, American Cholesterol Products, Inc. Presented before the Chemical Society of New York, New York, March 9, 1954. Based on an address given in New York, Dec. 10, 1953.

years been particularly interested in the ester and higher alcohol components of lanolin, and have therefore given the following composition of purified lanolin.

COMPOSITION OF PURIFIED LANOLIN	
HYDROCARBONS	3.0
FREE FATTY ACIDS	0.5
FREE ALCOHOLS	1.0
ESTERS	95.5
PERCENT PRESENT IN LANOLIN (APPROX)	

results when the Wijs method is used. We prefer the

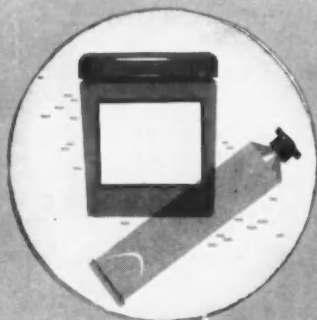
SOURCE OF DATA	TYPE WOOL FAT	ACID NO.	IODINE NO.	SAF. NO.	HYDROXYL NO.
BERTRAM	CRUDE (AMERICAN)	11.9	114.6	24.7	25.2
BERTRAM	CRUDE (AUSTRALIAN)	2.9	102.4	34.3	36.0
ARTIMON MILLS	CRUDE (AMERICAN)	14.50	120	32.0	36.0
DRUMMOND & BAKER	NEUTRAL (BRITISH)	1.0	94.8	31.9	-
LOWER	LANOLIN B.P.	0.4	-	22	-
HEMBROUGH	LANOLIN B.P.	1.0	94.106	18.0	32



The author in his research laboratory

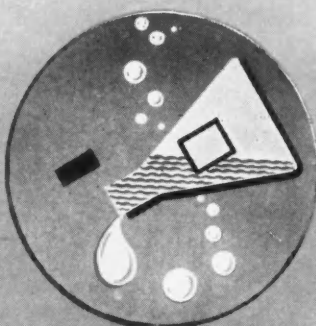
The way which, after purification, we call lanolin, constitutes from 10 to 25% of the weight of the sheared greasy wool. Along with it on wool are found substantial quantities of soil, salts, water and foreign organic matter which the sheep pick up in the course of their wanderings. To prepare USP quality lanolin from the crude material which results from scouring the wool requires several steps including centrifugal washing, neutralization, removal of soaps, filtration, bleaching, and deodorization. The problem marked in the photograph is a graphic portrayal of the composition of purified lanolin. The esters which constitute the bulk of lanolin are composed of sterols, diterpenes, and higher alcohols combined with fatty acids. The variety and complexity have created baffling problems of identification. Lanolin also contains small amounts of hydrocarbons, free fatty acids, and free alcohols. It is generally accepted that the free alcohols have the same relative composition as the bound alcohols present in the esters. Our knowledge of the chemical structure of lanolin remains, even at this date, pitifully incomplete as compared to other fats and waxes. What has been published up to a few years ago was more or less unimpressive, while some of the more critical literature reviews on lanolin composition have actually been contradictory, revealing and perpetuating some of the misconceptions which do not fit the facts as we now know them.

Wide Range of Variability
The American crude has unusual range in variability for a natural product. This is a happy circumstance in the unusually wide range of variability to which lanolin is subjected and which makes it a unique component



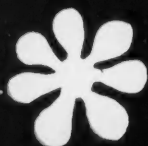
PASTE

WA-Paste, WAQ, WA-Special, smooth creamy texture, rich pearl lustre. For paste or liquid creme shampoos, rubber processing, textile cleaners, etc.



LIQUID

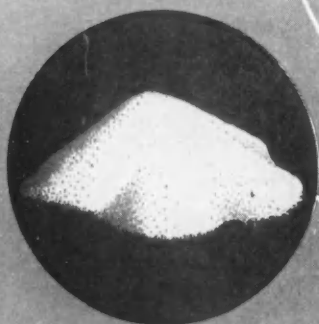
WAT . . . Triethanolamine neutralized, ideal for clear liquid shampoos, bubble baths, liquid dishwashing detergents.



stepanols LAURYL SULFATES

RIGID UNIFORMITY...

SUPERB COLOR



POWDER

Recommended for pharmaceutical, and cosmetic uses. Highest quality, purity, with rigid uniformity.



LABORATORY ASSISTANCE

Complete laboratory facilities are available to help you in developing your product.

Instantly Soluble

High Initial Foam

Close Bodied Creamy Foam

Excellent Foam Stability

Free Rinsing

Write for Literature and Samples

THE

STEPAN

CHEMICAL CO.

3250 So. Kedzie Avenue
Chicago 23, Illinois

SEPTEMBER, 1954

SOURCE OF DATA	TYPE	WOOL FAT	ACID NO.	SAP NO.	IODINE NO.	HYDROXYL NO.
BERTRAM	CRUDE	(AMERICAN)	11.9	114.6	54.7	55.2
BERTRAM	CRUDE	(AUSTRALIAN)	2.9	102.4	34.3	36.0
ARMINGTON MILLS	CRUDE	(AMERICAN)	14.50	120	35.38	-
BRIMMOND & BAKER	NEUTRAL	(BRITISH)	1.0	94.8	31.9	-
LOWER	LANOLIN	B.P.	0	-	25	-
HEMBROUGH	LANOLIN	B.P.	1.0	94.106	18.9	35

NEUTRAL (AMERICAN) 1.0 27.2 29.8 27.7

ANALYTICAL DATA FOR LAMOL

SOURCE OF DATA

AMERICAN CHEMICAL PRODUCTS

CHOLESTEROL

AMERICAN

U.S. DEPT. AGRICULTURE

EASTERN REGIONAL LAB.

LOWER

GERMAN

AMERICAN

DRUMMOND & BAKER

THE author in his research laboratory

1952

375

377

43

52.3

375

383

386

393

445

445

465

The wax which, after purification, we call lanolin, constitutes from 10 to 25% of the weight of the sheared greasy wool. Along with the wax in wool are found substantial quantities of soap, salts, water and foreign organic matter which the sheep pick up in the course of their wanderings. To prepare USP quality lanolin from the crude material which results from scouring the wool, we prepare a series of steps including centrifugation, neutralization, removal of soaps, filtration, bleaching, and drying.

Figure 1 is a schematic diagram of the composition of purified lanolin. The esters which constitute the bulk of lanolin are composed of sterols, triphenyls, and amphate alcohols combined with acids whose variety and complexity have created naming problems of identification. Lanolin also contains small amounts of hydrocarbons, free fatty acids, and free alcohols. It is generally accepted that the free alcohols have the same relative composition as the bound alcohols present in the lanolin.

Our knowledge of the chemistry of lanolin remains, even after the diligent application of the microscope as compared to other fats and waxes. What has been published up to a few years ago was more confusing than instructive, while some of the more critical literature all reviews on lanolin composition have actually done a disservice by deriving and perpetuating erroneous conclusions which distort the true nature of the lanolin molecule.

Australian crude.

Wide Range of Variability The American crude has undoubtedly the widest range of variability for this unhappy situation. It is a fundamental reason for this unhappy situation lies in the unusually wide range of variability to which lanolin is subjected. Not only is this substance composed

[illegible]

September 1942 187r

ANALYTICAL DATA FOR VARIOUS TYPES OF WOOL FAT

SOURCE OF DATA	TYPE WOOL FAT	ACID NO.	SAP. NO.	(HANUS) IODINE NO.	HYDROXYL NO.
BERTRAM	CRUDE (AMERICAN)	11.9	114.6	54.7	52.5
BERTRAM	CRUDE (AUSTRALIAN)	5.9	102.4	34.3	36.0
ARLINGTON MILLS	CRUDE (AMERICAN)	14.20	120 APPROX.	32-38 (WUS)	-
DRUMMOND & BAKER	NEUTRAL (BRITISH)	1.0	94.8	31.9	-
LOWER	LANOLIN B.P.	0.4	-	22	-
HEMBROUGH	LANOLIN B.P.	1.0 MAX.	94-106	18-32	-
AMERICAN CHOLESTEROL PRODUCTS INC.	NEUTRAL (AMERICAN) A	1.0	97.5	29.8	27.7
	NEUTRAL (AMERICAN) B	0.98	88.7	21.4	27.6
	LANOLIN U.S.P.-A ₁	<1	89.9	29.8	29.9
	LANOLIN U.S.P.-A ₂	<1	91.8	-	38.8
	LANOLIN U.S.P.-A ₃	<1	89.1	-	36.3
	LANOLIN U.S.P.-B ₁	<1	97.5	28.1	31.9
	LANOLIN U.S.P.-B ₂	<1	95.7	27.4	36.7
	LANOLIN U.S.P.-B ₃	<1	99.0	25.0	33.8

Table I

ANALYTICAL DATA FOR LANOLIN ALCOHOLS

SOURCE OF DATA	IODINE NO. (HANUS)	HYDROXYL NO.	MEAN MOL. WT.
DRUMMOND & BAKER	69.1	-	-
BERTRAM	(AMERICAN) -	145.3	392.3
	(AUSTRALIAN) -	154	364.3
LOWER	45.5	144**	377
EASTERN REGIONAL LAB. U.S. DEPT. AGRICULTURE	-	149.2*	375
AMERICAN CHOLESTEROL PRODUCTS	46.5	145	386
	39.3	146.5	383

O = PERSONAL COMMUNICATION, 1953

* = CALCULATED FROM DATA GIVEN BY THE SOURCE

** = CALCULATED FROM THE ACETYL NUMBER

Table II

of a great many constituents which may be present in numerous combinations with each other; but to further complicate the problem marked quantitative differences occur from lot to lot. Lanolin is a product of animal synthesis and it is to be expected that natural variations will occur due to basic differences in the heredity and environment of the world's sheep flocks. We must also consider that these variations can be increased considerably by changes which occur between the time the sheep has been sheared of its wool, and the purified USP lanolin reaches the cosmetic manufacturer. Age and storage conditions of the greasy wool, scouring systems and finally lanolin processing methods all influence the composition and appearance of the final product which may be quite different from the original wool fat as secreted by the sheep's skin glands.

Table I lists analytical data given by various investigators for different types of wool fat. It should be noted here that Bertram¹ analyzed two crude wool fat samples of the type commonly used for the manufacture of USP lanolin—one of these being an American, the other an Australian crude.

The American crude has unusually high values for iodine number and hydroxyl number. Arlington Mills crude is a solvent extracted type which, because of dark color, strong odor, and high free fatty acid content is

not suitable for lanolin production, but was used by Weitkamp² in his work which will be detailed later. Neutral wool fat as analyzed by Drummond & Baker³ and our laboratory is the most desirable for lanolin production since very little treatment is needed outside of improving color and odor. Data for British refined lanolin as published by Lower⁴ and by Hembrough⁵ are listed along with that for six American lanolins, three from each of two producers, which were analyzed in our laboratories.

The analysis of lanolin usually consists of chemical determinations of acid number, saponification number, and iodine number in addition to the physical measurements required. The hydroxyl number which is a measure of free hydroxyls has evidently not been considered very important in the past and was rarely determined. The importance of the hydroxyl number will become evident in the latter part of this paper.

Composition of Lanolin

Even careful study of the analytical data does not shed much light on the composition of lanolin. For instance, the iodine number indicates that some unsaturation is present, but doesn't tell in what part of the ester the double bonds are located. The hydroxyl number is indicative of free hydroxyl groups but doesn't tell us whether these are present on free alcohols or on hydroxyesters, and the saponification number indicates the presence of esters but tells us nothing of their structure.

The elucidation of the chemical structure of the various components which form lanolin has been attempted by many investigators whose findings are quite contradictory. It may truthfully be said, in this instance, that disagreement is the rule rather than the exception.

The logical first step in a study of lanolin composition is the splitting of the esters by means of saponification into component alcohols and soaps of the fatty acids. The saponification procedure has been carried out by many methods, the end products varying considerably depending on the nature and concentration of the alkali or alkaline earth, and other factors such as media, temperature, time, pressure, agitation, and presence of inert gas.

At American Cholesterol Products we have for many years been particularly interested in the sterol and higher alcohol components of lanolin, and have therefore given a great deal of time to the study of saponification methods. The procedure which we have developed, and which is described in the patent literature^{21, 22, 23}, employs concentrated aqueous solutions of alkaline earth hydroxides in an atmosphere of nitrogen to effect complete saponification with minimum degradation, oxidation and polymerization of the alcohol and acid constituents. Because gummy insoluble soaps are formed, this method requires the use of complicated heavy duty processing equipment but we feel that this is justified by the results obtained.

Let us now examine the lanolin alcohols which constitute approximately 50% of lanolin. In the analytical data for lanolin alcohols on Table II, the iodine numbers are listed in the first column. Most of the double bonds of lanolin are located in the alcoholic fraction, and some of them, especially in the triterpene alcohols, are quite resistant to iodine, resulting in very erratic results when the Wijs method is used. We prefer the

more reactive Hanus method which gives us reproducible results. Note there is good agreement with reference to the hydroxyl number. This determination is used as the basis for the calculations of the mean molecular weight of the total alcohols which, as shown on this table, falls within the comparatively narrow range of 364.3 to 392.3. It must be stated that Warth⁶ in his book on waxes published in 1947 listed the contradictory value of 239 as the mean molecular weight of this fraction. In view of that data obtained by us and others as listed on this table, we must disagree with this author.

As far back as 1856 investigations were carried out in an effort to isolate and identify the individual components of lanolin. After nearly a century there are many contradictory findings in the literature and gaps in our knowledge. Table III depicts our present information on the composition of the lanolin alcohols. The major groups are aliphatic alcohols, sterols, and triterpene alcohols. The incompleteness of data on the alcohols is evidenced by the fact that approximately 20% of this fraction remains unknown and unclassifiable.

Our knowledge of the aliphatic alcohol group has been in a troubled state for many years due to the reported presence in lanolin of various familiar alcohols without positive isolation and identification. We now have reason to suspect that many of the compounds reported were mixtures of some of the unusual alcohols which only recently were positively identified. In 1951, Horn and Hougan⁷ isolated and tentatively identified five long chain aliphatic alcohols having two hydroxyl groups each. These are commonly referred to as diols. In 1953 these investigators²⁴ reported on a more extensive work which confirmed their earlier publication.

They again isolated and this time definitely established the identity of five aliphatic diols from the unsaponifiable fraction of lanolin. This was done by means of chromatography and distillation at reduced pressure in a microspinning band fractionating column. They were also able to demonstrate the close structural relationship of these diols to the hydroxyacids of lanolin which will be discussed in more detail later in this paper. Dr. Louis Fieser⁸ of Harvard University in a personal communication recently reported that he had isolated 3.7% of a related diol from a fraction of lanolin alcohols. Tiedt and Truter⁹ in 1951 isolated and identified five normal alcohols. In 1952 Murray and Shoenfeld¹⁰ working in Australia isolated and identified ten branched chain alcohols which also have a close structural relationship to the lanolin fatty acids.

The sterol group is composed mainly of cholesterol which is unquestionably the major single component of lanolin alcohols. It is accompanied here, as is usual in animal tissue, by its dihydro derivative, cholestanol. It is likely that many other related sterols are present in small amounts, but ill defined products such as oxycholesterol, although reported in the literature, are not included in this table.

Cerebrosterol, a cyclic diol, was isolated by Fieser just a few months ago from a lanolin alcohol fraction supplied by our laboratory. An interesting point about this sterol is that it had previously been found only in brain tissue; hence its name. It seems that although lanolin gets into everything these days, the reverse is also possible.

The third group listed as triterpene alcohols, has

been commonly known by the misnomer, "ischolesterol". These are more unsaturated than cholesterol and have three additional carbon atoms. The chemistry of this group has been revised repeatedly over the years but is still probably not complete. At first thought to be an isomer of cholesterol, this fraction was later found to be composed of a mixture of cyclic C₃₀ alcohols as shown on the table. Their ring skeletons are very similar to the sterols. Lanosterol, acting like cholesterol, precipitates digitonin which indicates that its structural configuration resembles cholesterol in several pertinent respects. Much of the recent information on the triterpenes has resulted from the work of the Swiss chemist, Ruzicka and his associates, who have also reported that lanosterol is identical to kryptosterol²⁵ previously found only in plants.

The presence of small amounts of hydrocarbons was established in 1945 by Daniel, Lederer and Velluz¹¹, in France. These have been separated from lanolin alcohols by chromatography in our laboratory, and we find them to be a viscous, oily liquid mixture.

I am going to turn for a few minutes from sheep to human surface skin fat in order to make some interesting comparisons with relation to the unsaponifiable fractions. It has recently been found²⁶ that the unsaponifiable of human sebum consists of 14-20% of normal chain aliphatic alcohols. 14-19% of cholesterol,

COMPOSITION OF LANOLIN ALCOHOLS

ALIPHATIC ALCOHOLS			
NORMAL (C ₁₈ to C ₂₆)			} 18%
BRANCHED CHAIN (C ₁₇ to C ₂₆)			
DIOLS (C ₁₆ to C ₂₄) FIVE MEMBERS ISOLATED IN 1951			
STEROLS			4 to 5%
CHOLESTEROL	C ₂₇ H ₄₆ O	25%	
DIHYDROCHOLESTEROL (CHOLESTANOL)	C ₂₇ H ₄₈ O	5%	
CEREBROSTEROL	C ₂₇ H ₄₇ O ₂	SMALL AMOUNT	
TRITERPENE ALCOHOLS			
LANOSTEROL	C ₃₀ H ₅₀ O	10%	
DIHYDROLANOSTEROL	C ₃₀ H ₅₂ O	10%	
AGNOSTEROL	C ₃₀ H ₄₈ O	1%	
DIHYDROAGNOSTEROL	C ₃₀ H ₅₀ O	4%	
HYDROCARBONS			<1%
UNCLASSIFIED - AT PRESENT			20%

Table III

ANALYTICAL DATA FOR LANOLIN FATTY ACIDS

SOURCE OF DATA	ACID NO.	SAP. NO.	ESTER NO.	MEAN MOL. WT.	OH NO.	% OH ACIDS	I. NO. (HANUS)
DRUMMOND & BAKER 1885 ^a	-	-	-	297	-	-	-
WEITKAMP 1865 ^a	-	-	-	300	-	4.2	-
BERTRAM {	AMERICAN 170 ^a	-	-	329	167.6	98.5	-
	AUSTRALIAN 171 ^a	-	-	327	102.6	60.0	-
LOWER 128 ^a	153	25 ^a	437 ^a	46.5 ^{ab}	?	18	
AMERICAN 128.7	174.4	45.7	435	42.4	33.0	9.2	
CHOLESTEROL PRODUCTS {	154.5	178	23.5	362	63.8	41.3	6.5

^a = CALCULATED FROM DATA GIVEN BY THE SOURCE

^{ab} = CALCULATED FROM THE ACETYL NUMBER

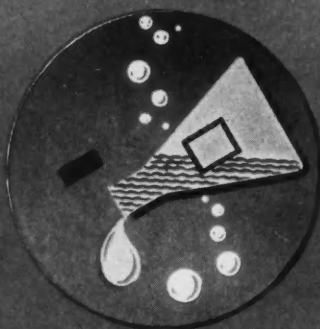
^{***} = PRESENCE OF 15% UNSAPONIFIABLE PREVENTS CALCULATION

Table IV



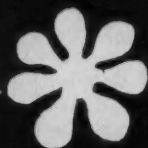
PASTE

WA-Paste, WAQ, WA-Special, smooth creamy texture, rich pearl luster. For paste or liquid cream shampoos, rubber processing, textile cleaners, etc.



LIQUID

WAT... Triethanolamine neutralized, ideal for clear liquid shampoos, bubble baths, liquid dishwashing detergents.



stepanols LAURYL SULFATES

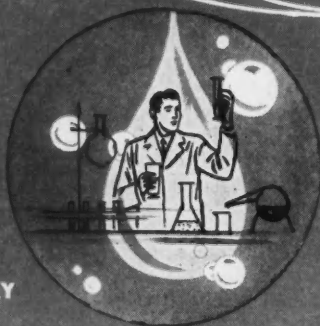
RIGID UNIFORMITY...

SUPERB COLOR



POWDER

Recommended for pharmaceutical, and cosmetic uses. Highest quality, purity, with rigid uniformity.



LABORATORY ASSISTANCE

Complete laboratory facilities are available to help you in developing your product.

Instantly Soluble

High Initial Foam

Close Bodied Creamy Foam

Excellent Foam Stability

Free Rinsing

Write for Literature and Samples

THE

STEPAN

CHEMICAL CO.

3250 So. Kedzie Avenue
Chicago 23, Illinois

Newer Concepts of *Lanolin Composition*

LESTER I. CONRAD



The author in his research laboratory

THE United States Pharmacopeia described lanolin, or wool fat, as the purified, fat-like substance from the wool of sheep. This brief description does not reveal the complexity of lanolin which is really a wax rather than a fat. Natural waxes consist mainly of esters formed in nature by the union of higher alcohols and higher fatty acids. They are characterized by a relatively low saponification number, a high percentage of unsaponifiable matter, and the complete absence of glycerol.

* Technical Director, American Cholesterol Products, Inc. Presented before the Chicago Section of the Society of Cosmetic Chemists, March 9, 1954. Based on an address given in New York, Dec. 10, 1953.

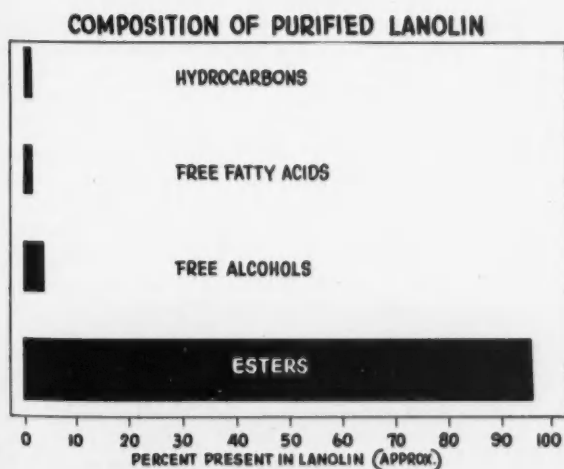


Figure 1

The wax which, after purification, we call lanolin, constitutes from 10 to 25% of the weight of the sheared greasy wool. Along with it on wool are found substantial quantities of soil, salts, water and foreign organic matter which the sheep pick up in the course of their wanderings. To prepare USP quality lanolin from the crude material which results from scouring the wool requires several steps including centrifugal washing, neutralization, removal of soaps, filtration, bleaching and deodorization.

In Figure 1 we have a graphic portrayal of the composition of purified lanolin. The esters which constitute the bulk of lanolin are composed of sterols, triterpenes, and aliphatic alcohols combined with acids whose variety and complexity have created baffling problems of identification. Lanolin also contains small amounts of hydrocarbons, free fatty acids, and free alcohols. It is generally accepted that the free alcohols have the same relative composition as the bound alcohols present in the esters.

Our knowledge of the chemistry of lanolin remains, even at this date, painfully incomplete as compared to other fats and waxes. What has been published up to a few years ago was more confusing than instructive, while some of the non-critical literature reviews on lanolin composition have actually done a disservice by reviving and perpetuating erroneous conclusions which do not fit the facts as we now know them.

Wide Range of Variability

A fundamental reason for this unhappy situation lies in the unusually wide range of variability to which lanolin is subject. Not only is this substance composed

ANALYTICAL DATA FOR VARIOUS TYPES OF WOOL FAT

SOURCE OF DATA	TYPE WOOL FAT	ACID NO.	SAP. NO.	IODINE NO. (HALLS)	HYDROXYL NO.
BERTRAM	CRUDE (AMERICAN)	11.9	114.6	54.7	52.5
BERTRAM	CRUDE (AUSTRALIAN)	5.9	102.4	34.3	36.0
ARLINGTON MILLS	CRUDE (AMERICAN)	14 ²⁰	120 APPROX.	32 ³⁸ (WU)	-
DRUMMOND & BAKER	NEUTRAL (BRITISH)	1.0	94.8	31.9	-
LOWER	LANOLIN B.P.	0.4	-	22	-
HEMBROUGH	LANOLIN B.P.	1.0 MAX	94 ¹⁰⁶	18 ³²	-
AMERICAN CHOLESTEROL PRODUCTS INC.	NEUTRAL (AMERICAN) A	1.0	97.5	29.8	27.7
	NEUTRAL (AMERICAN) B	0.98	88.7	21.4	27.6
	LANOLIN U.S.P.-A1	<1	89.9	29.8	29.9
	LANOLIN U.S.P.-A2	<1	91.8	-	38.8
	LANOLIN U.S.P.-A3	<1	89.1	-	36.3
	LANOLIN U.S.P.-B1	<1	97.5	28.1	31.9
	LANOLIN U.S.P.-B2	<1	95.7	27.4	36.7
	LANOLIN U.S.P.-B3	<1	99.0	25.0	33.8

Table I

ANALYTICAL DATA FOR LANOLIN ALCOHOLS

SOURCE OF DATA	IODINE NO. (HALLS)	HYDROXYL NO.	MEAN MOL. WT.
DRUMMOND & BAKER	69.1	-	-
BERTRAM	AMERICAN	145.3	392.3
	AUSTRALIAN	154	364.3
LOWER	45.5	144**	377
EASTERN REGIONAL LAB. U.S. DEPT. AGRICULTURE O	-	149.2*	375
AMERICAN CHOLESTEROL PRODUCTS	46.5	145	386
	39.3	146.5	383

O = PERSONAL COMMUNICATION, 1953

* = CALCULATED FROM DATA GIVEN BY THE SOURCE

** = CALCULATED FROM THE ACETYL NUMBER

Table II

of a great many constituents which may be present in numerous combinations with each other; but to further complicate the problem marked quantitative differences occur from lot to lot. Lanolin is a product of animal synthesis and it is to be expected that natural variations will occur due to basic differences in the heredity and environment of the world's sheep flocks. We must also consider that these variations can be increased considerably by changes which occur between the time the sheep has been sheared of its wool, and the purified USP lanolin reaches the cosmetic manufacturer. Age and storage conditions of the greasy wool, scouring systems and finally lanolin processing methods all influence the composition and appearance of the final product which may be quite different from the original wool fat as secreted by the sheep's skin glands.

Table I lists analytical data given by various investigators for different types of wool fat. It should be noted here that Bertram¹ analyzed two crude wool fat samples of the type commonly used for the manufacture of USP lanolin—one of these being an American, the other an Australian crude.

The American crude has unusually high values for iodine number and hydroxyl number. Arlington Mills crude is a solvent extracted type which, because of dark color, strong odor, and high free fatty acid content is

not suitable for lanolin production, but was used by Weitkamp² in his work which will be detailed later. Neutral wool fat as analyzed by Drummond & Baker³ and our laboratory is the most desirable for lanolin production since very little treatment is needed outside of improving color and odor. Data for British refined lanolin as published by Lower⁴ and by Hembrough⁵ are listed along with that for six American lanolins, three from each of two producers, which were analyzed in our laboratories.

The analysis of lanolin usually consists of chemical determinations of acid number, saponification number, and iodine number in addition to the physical measurements required. The hydroxyl number which is a measure of free hydroxyls has evidently not been considered very important in the past and was rarely determined. The importance of the hydroxyl number will become evident in the latter part of this paper.

Composition of Lanolin

Even careful study of the analytical data does not shed much light on the composition of lanolin. For instance, the iodine number indicates that some unsaturation is present, but doesn't tell in what part of the ester the double bonds are located. The hydroxyl number is indicative of free hydroxyl groups but doesn't tell us whether these are present on free alcohols or on hydroxyesters, and the saponification number indicates the presence of esters but tells us nothing of their structure.

The elucidation of the chemical structure of the various components which form lanolin has been attempted by many investigators whose findings are quite contradictory. It may truthfully be said, in this instance, that disagreement is the rule rather than the exception.

The logical first step in a study of lanolin composition is the splitting of the esters by means of saponification into component alcohols and soaps of the fatty acids. The saponification procedure has been carried out by many methods, the end products varying considerably depending on the nature and concentration of the alkali or alkaline earth, and other factors such as media, temperature, time, pressure, agitation, and presence of inert gas.

At American Cholesterol Products we have for many years been particularly interested in the sterol and higher alcohol components of lanolin, and have therefore given a great deal of time to the study of saponification methods. The procedure which we have developed, and which is described in the patent literature^{21, 22, 23}, employs concentrated aqueous solutions of alkaline earth hydroxides in an atmosphere of nitrogen to effect complete saponification with minimum degradation, oxidation and polymerization of the alcohol and acid constituents. Because gummy insoluble soaps are formed, this method requires the use of complicated heavy duty processing equipment but we feel that this is justified by the results obtained.

Let us now examine the lanolin alcohols which constitute approximately 50% of lanolin. In the analytical data for lanolin alcohols on Table II, the iodine numbers are listed in the first column. Most of the double bonds of lanolin are located in the alcoholic fraction, and some of them, especially in the triterpene alcohols, are quite resistant to iodine, resulting in very erratic results when the Wijs method is used. We prefer the

more reactive Hanus method which gives us reproducible results. Note there is good agreement with reference to the hydroxyl number. This determination is used as the basis for the calculations of the mean molecular weight of the total alcohols which, as shown on this table, falls within the comparatively narrow range of 364.3 to 392.3. It must be stated that Warth⁶ in his book on waxes published in 1947 listed the contradictory value of 239 as the mean molecular weight of this fraction. In view of that data obtained by us and others as listed on this table, we must disagree with this author.

As far back as 1856 investigations were carried out in an effort to isolate and identify the individual components of lanolin. After nearly a century there are many contradictory findings in the literature and gaps in our knowledge. Table III depicts our present information on the composition of the lanolin alcohols. The major groups are aliphatic alcohols, sterols, and triterpene alcohols. The incompleteness of data on the alcohols is evidenced by the fact that approximately 20% of this fraction remains unknown and unclassifiable.

Our knowledge of the aliphatic alcohol group has been in a troubled state for many years due to the reported presence in lanolin of various familiar alcohols without positive isolation and identification. We now have reason to suspect that many of the compounds reported were mixtures of some of the unusual alcohols which only recently were positively identified. In 1951, Horn and Hougan⁷ isolated and tentatively identified five long chain aliphatic alcohols having two hydroxyl groups each. These are commonly referred to as diols. In 1953 these investigators²⁴ reported on a more extensive work which confirmed their earlier publication.

They again isolated and this time definitely established the identity of five aliphatic diols from the unsaponifiable fraction of lanolin. This was done by means of chromatography and distillation at reduced pressure in a microspinning band fractionating column. They were also able to demonstrate the close structural relationship of these diols to the hydroxyacids of lanolin which will be discussed in more detail later in this paper. Dr. Louis Fieser⁸ of Harvard University in a personal communication recently reported that he had isolated 3.7% of a related diol from a fraction of lanolin alcohols. Tiedt and Truter⁹ in 1951 isolated and identified five normal alcohols. In 1952 Murray and Shoenfeld¹⁰ working in Australia isolated and identified ten branched chain alcohols which also have a close structural relationship to the lanolin fatty acids.

The sterol group is composed mainly of cholesterol which is unquestionably the major single component of lanolin alcohols. It is accompanied here, as is usual in animal tissue, by its dihydro derivative, cholestanol. It is likely that many other related sterols are present in small amounts, but ill defined products such as oxycholesterol, although reported in the literature, are not included in this table.

Cerebrosterol, a cyclic diol, was isolated by Fieser just a few months ago from a lanolin alcohol fraction supplied by our laboratory. An interesting point about this sterol is that it had previously been found only in brain tissue; hence its name. It seems that although lanolin gets into everything these days, the reverse is also possible.

The third group listed as triterpene alcohols, has

been commonly known by the misnomer, "isocholesterol". These are more unsaturated than cholesterol and have three additional carbon atoms. The chemistry of this group has been revised repeatedly over the years but is still probably not complete. At first thought to be an isomer of cholesterol, this fraction was later found to be composed of a mixture of cyclic C₃₀ alcohols as shown on the table. Their ring skeletons are very similar to the sterols. Lanosterol, acting like cholesterol, precipitates digitonin which indicates that its structural configuration resembles cholesterol in several pertinent respects. Much of the recent information on the triterpenes has resulted from the work of the Swiss chemist, Ruzicka and his associates, who have also reported that lanosterol is identical to kryptosterol²⁵ previously found only in plants.

The presence of small amounts of hydrocarbons was established in 1945 by Daniel, Lederer and Velluz¹¹, in France. These have been separated from lanolin alcohols by chromatography in our laboratory, and we find them to be a viscous, oily liquid mixture.

I am going to turn for a few minutes from sheep to human surface skin fat in order to make some interesting comparisons with relation to the unsaponifiable fractions. It has recently been found²⁶ that the unsaponifiable of human sebum consists of 14-20% of normal chain aliphatic alcohols. 14-19% of cholesterol,

COMPOSITION OF LANOLIN ALCOHOLS

<u>ALIPHATIC ALCOHOLS</u>			
NORMAL (C ₁₈ to C ₂₆)			} 18%
BRANCHED CHAIN (C ₁₇ to C ₂₆)			
DIOLS (C ₁₆ to C ₂₄)	FIVE MEMBERS ISOLATED IN 1951		
4 to 5%			
<u>STEROLS</u>			
CHOLESTEROL	C ₂₇ H ₄₆ O		25%
DIHYDROCHOLESTEROL (CHOLESTANOL)	C ₂₇ H ₄₈ O		5%
CEREBROSTEROL	C ₂₇ H ₄₇ O ₂		SMALL AMOUNT
<u>TRITERPENE ALCOHOLS</u>			
LANOSTEROL	C ₃₀ H ₅₀ O		10%
DIHYDROLANOSTEROL	C ₃₀ H ₅₂ O		10%
AGNOSTEROL	C ₃₀ H ₄₈ O		1%
DIHYDROAGNOSTEROL	C ₃₀ H ₅₀ O		4%
<u>HYDROCARBONS</u>			
UNCLASSIFIED - AT PRESENT			<1%
			20%

Table III

ANALYTICAL DATA FOR LANOLIN FATTY ACIDS

SOURCE OF DATA	ACID NO.	SAP. NO.	ESTER NO.	MEAN MOL. WT.	OH NO.	% ON ACIDS	I NO.
DRUMMOND & BAKER 189.5*	-	-	-	297	-	-	-
WEITKAMP 186.5*	-	-	-	300	-	4.2	-
BERTRAM	AMERICAN 170*	-	-	329	167.6	98.5	-
	AUSTRALIAN 171*	-	-	327	102.6	60.0	-
LOWER	128*	153	25*	437*	46.5**	??	18
AMERICAN CHOLESTEROL PRODUCTS	128.7	174.4	45.7	435	42.4	33.0	9.2
	154.5	178	23.5	362	63.8	41.3	6.5

* = CALCULATED FROM DATA GIVEN BY THE SOURCE

** = CALCULATED FROM THE ACETYL NUMBER

*** = PRESENCE OF 15% UNSAPONIFIABLE PREVENTS CALCULATION

Table IV



Organic synthesis in the research laboratory

15-42% of unclassified products, and, as a major constituent, 30-46% of hydrocarbons. No triterpene alcohols have been found.

In comparing these results with the data on Table IV we find that the human aliphatic alcohols, sterols and unclassified fractions approximate the lanolin figures. However, where the human unsaponifiable lacks triterpene alcohols it has hydrocarbons, and where the lanolin unsaponifiable lacks hydrocarbons it has triterpene alcohols.

Squalene accounts for 30-40%²⁶ of the sebum hydrocarbons. This branched polyunsaturated (6 double bonds) hydrocarbon is the only acyclic triterpene known. Its formula is $C_{30}H_{50}$. Evidence has been presented by Langdon and Bloch in 1952²⁷ that squalene is biosynthesized from acetate and in turn used in the biosynthesis of cholesterol. This work was done on rodents and employed radio-active tracers.

Thus we see that squalene, which is a precursor of cholesterol, is related chemically to the triterpene alcohols. Whether the squalene of human sebum has a functional similarity to the lanosterols of lanolin is entirely speculative, but it is possible that these compounds represent divergent lines of biosynthesis in different species.

We now turn to the study of the other major component of the lanolin esters—the fatty acids, which constitute approximately 50% of lanolin. Analytical data on the lanolin fatty acids is presented on Table IV. Natural variations which go back to the original lanolin account for some, but not all, of the apparent disagreements. Our new concept of lanolin composition is based in part on findings that marked changes occur in the fatty acids during the decomposition procedure required to free them from their soaps. It is unfortunate that there are so many blank spaces in this table. Many of the sources listed did not determine saponification number, hence the ester number cannot be calculated. Had the hydroxyl number been determined by Weitkamp² it probably would have given him a different conception of his original fatty acids; and had iodine determinations on these fatty acids been carried out, our knowledge of lanolin would probably be further advanced.

Although the data of Lower¹² are presented and dis-

cussed in this paper it is well to point out that his fatty acids, according to his 1947 publication, contained 15% of unsaponifiable matter which we must assume to be alcohols. From the manner in which the acids reported on by the other investigators were treated, we feel safe in assuming that these contained no alcohols. In our own experiments the fatty acids were tested and gave negative Liebermann-Burchard reactions; the absence of sterols being taken as indicative of the absence of alcohols.

You will note that various authors report a sizable hydroxyl number indicating that their fatty acids contained considerable amounts of hydroxyacids. These are acids which contain a free hydroxyl group on the molecule in addition to the carboxyl group which is characteristic of acids.

The alpha hydroxyacids, to date the only type identi-



Control laboratory of American Cholesterol Products, Inc.

fied in lanolin, when, under the influence of heat or an acidic catalyst, convert by esterification into cyclic esters, or, by condensation into polyesters. The result of these reactions is to decrease the hydroxyl and acid numbers with a proportionate increase in the ester number.

Although beta hydroxyacids have not been isolated, it is possible that these are also present in the original lanolin. These are saturated acids which undergo dehydration to form unsaturated acids. Since we are dealing here with fatty acids which were treated with heat and acid, we now have to take the possible effects of this treatment into consideration in visualizing the original structure of the fatty acids. From the iodine number, as shown in the last column of the table, it is evident that unsaturated acids are present. Truter¹³ in 1951 estimated that these represent about 15% of the total fatty acids. We question whether unsaturated acids are present in the original fatty acids to the extent of 15%. Our doubt on this point is due to findings that the degree of unsaturation is readily affected by the treatment of the fatty acids. Fatty acid samples were

prepared by us from the same fatty acid soap but under different conditions. The data on these acids are to be seen on the bottom two rows of this table. Separation of the first sample was carried out under the usual drastic conditions: that is acid treatment for an extended period of time and a fairly high temperature. The preparation of the second sample on the bottom row differed only in that milder conditions were observed. In each case the reaction was carried to completion. Note that the iodine number of the second is lower than that of the first by what we consider to be a significant amount. This suggests the presence of the original material of beta hydroxyacids which were converted by the more drastic conditions to unsaturated acids. Also note that the second sample has significantly higher acid and hydroxyl numbers than the first, suggesting that milder conditions have resulted in less

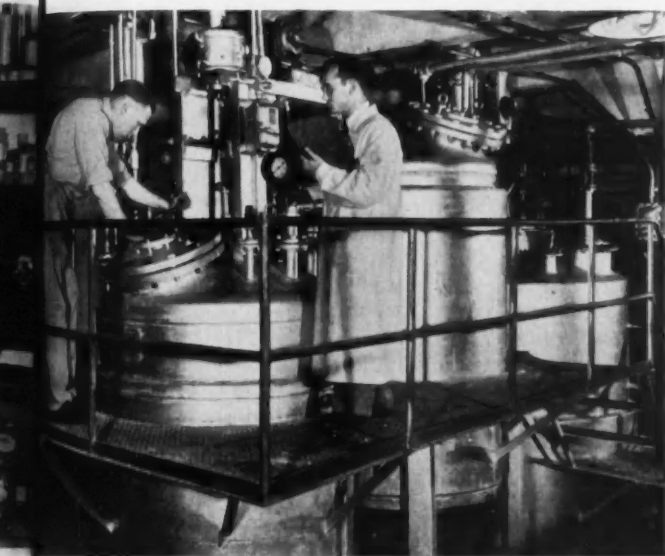
COMPOSITION OF LANOLIN FATTY ACIDS (FROM WEITKAMP)

NUMBER OF ACIDS	SERIES	STRUCTURAL FORMULA	PERCENT PRESENT
9	NORMAL	$\text{CH}_3-(\text{CH}_2)_{2n}-\text{COOH}$ ($n=4$ to 12 incl)	9.5
2	HYDROXY	$\text{CH}_3-(\text{CH}_2)_{2n-1}-\underset{\text{OH}}{\text{CH}}-\text{COOH}$ ($n=6,7$)	4.2
10	ISO	$\text{CH}_3-\underset{\text{CH}_3}{\text{CH}}-(\text{CH}_2)_{2n}-\text{COOH}$ ($n=3$ to 11 incl)	29.3
11	ANTEISO	$\text{CH}_3-\text{CH}_2-\underset{\text{CH}_3}{\text{CH}}-(\text{CH}_2)_{2n}-\text{COOH}$ ($n=2$ to 13 incl)	37.3
		DISTILLATION LOSS	— 6.0
		RESIDUE	— 13.0
			99.3

Table V

We have since been able to carry these experiments further by means of an extremely mild catalytic method which resulted in a product with acid and hydroxyl numbers very close to these calculated values.

In turning from the analytical data to the composition of the fatty acids we can use the outstanding work done by Weitkamp² in 1945 as a guide. Weitkamp formed the methyl esters of lanolin fatty acids, fractionated them by vacuum distillation, and succeeded in identifying a total of thirty-two acids. Table V summarizes his data and illustrates the four types of acids he found in wool fat. Note particularly that he isolated and identified only two hydroxyacids which constituted 4.2% of his original acids. Weitkamp himself recognized that the great deficiency of the distillation method was the thermal instability of the methyl esters of hydroxyacids, and attributed a 6% loss during distillation to decomposition of these acids. If we add this 6% to the 4.2% found, the total, or 10.2%, is the content of hydroxyacids we can deduce from his data. This is far below the percentage we obtained from extensive analysis of lanolin acids. You can now see why the lack of hydroxyl number determinations in Weitkamp's data is indeed regrettable. Had he made this determination



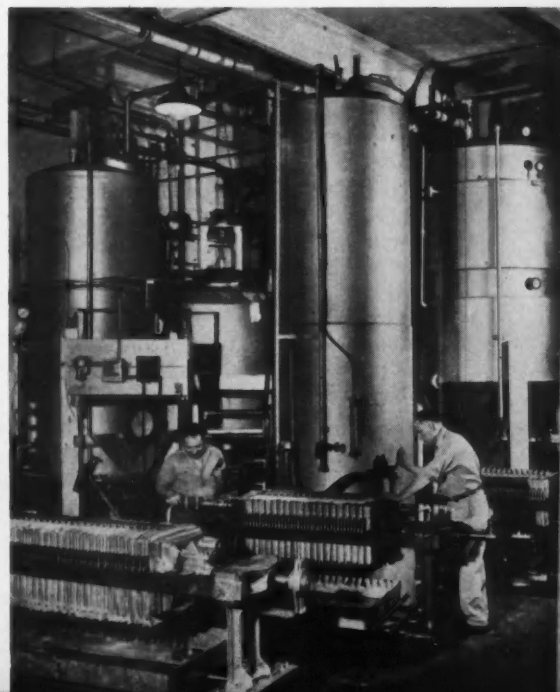
Equipment used in making sterol products from lanolin

polyester and/or cyclic ester formation from alpha hydroxyacids.

Esters from Acids Alone

I wish to make clear again that although an acid and an alcohol are generally required for esterification—in this instance we have only acids. The ambidextrous hydroxyacid molecule contains both an alcoholic and an acidic group, and these groups are capable of reacting either with each other or with other acids. Thus, esters can be formed from acids alone.

The ester number of our acids is probably due to esters formed in this manner. Assuming this to be the case, we can calculate the acid and hydroxyl numbers of a lanolin fatty acid mixture in which these esters have been split back into hydroxyacids. If we correct the values for the mildly treated sample on the bottom row of the table in this manner, we obtain the following results: the acid number increases to 178, the saponification number remains unchanged at 178, the ester number drops to 0, the calculated mean molecular weight as now corrected is 315, while the hydroxyl number rises to 87.3 and percent hydroxyacids to 49.



Battery of aluminum filter presses used in the production of sterol and lanolin derivatives

the degree of acid degradation would have been made apparent.

Turning again to the analytical data for fatty acids on Table IV, I wish to point out that numerous analyses similar to those detailed on the two bottom rows of the table resulted in a 30 to 40 range for percent hydroxyacids. When corrected by the method previously described which takes into account that esters were formed from hydroxyacids, this range becomes 40 to 50% of the acids.

Bertram's¹ extensive analytical data contain high values for hydroxyl number. The fatty acids derived from the American wool fat are particularly high in this respect. Calculating from his data it appears that 98.5% of the acids in the American, and 60% of the acids in the Australian sample were hydroxyacids. The latter is fairly close to our corrected values. It is difficult, however, to evaluate Bertram's data completely because of his omission of saponification, ester, and iodine numbers.

In 1953 Horn, Hougan, and von Rudloff¹⁴ actually isolated and identified nearly 30% of hydroxyacids from the acidic fraction of lanolin. These authors used two different separation procedures including the Craig solvent distribution method which would not be expected to degrade hydroxyacids. The acids they identified were the normal hydroxy derivatives of lauric, myristic, palmitic and stearic acids.

Turning now to the free alcohols of lanolin, you may remember that the bar graph shown early in this talk represented the alcohols as a fairly small fraction of lanolin. The substantial hydroxyl number of lanolin has led many investigators to erroneous conclusions as to the percent of free alcohols present. Some apparently considered the hydroxyl number of lanolin to be due to the presence of free alcohols. Even in 1947 Warth⁶ in his book "The Chemistry and Technology of Waxes" listed 25% free alcohols as being present in neutral anhydrous wool fat. Since this is about the figure one would obtain after dividing the hydroxyl number of lanolin by the hydroxyl number of lanolin alcohols, it is possible that Warth used this line of reasoning.

Deuel's¹⁵ excellent book "Lipids" Vol. I, published in 1951, also used the 25% figure acknowledging Warth as the source of his data.

Free Cholesterol

Recently reported direct determinations of the percentage of free cholesterol in lanolin yield the data presented on Table VI. It must be remembered that this determination is carried out by the digitonin gravimetric method which is not specific for cholesterol since lanosterol, cholestanol and related products will form insoluble digitonides. It is apparent from the table that the hydroxyl number which can be attributed to the free alcohols in lanolin is quite low. In the last column we have calculated the percentage of the total hydroxyl number of lanolin which is due to the hydroxyl number of the free alcohols. It will be noticed that even the highest percentage listed taken from data of the Eastern Regional Research Laboratory¹⁷ indicates that a minor percentage of the hydroxyl number is due to free alcohols, and the greater part must be attributed to another type of compound, namely hydroxyesters.

Hydroxyesters are those esters of acids and alcohols

FREE ALCOHOLS OF LANOLIN

	FREE CHOLESTEROL	TOTAL FREE ALCOHOLS	OH NO. OF LANOLIN DUE TO FREE ALC. (CALC.)	OH NO. DUE TO FREE ALC. OH NO. OF LANOLIN (55) $\times 100$
BERTRAM (1949) AMERICAN	0.82% (FREE STEROLS)	1.2%	1.8	5.1%
BERTRAM (1949) AUSTRALIAN	0.02% (FREE STEROLS)	0.03%	0.045	NEGLIGIBLE
EASTERN REGIONAL LAB. U.S. DEPT. OF AGRICULTURE *	1.7%	4.0%	6.0	17.1%

* = PERSONAL COMMUNICATION - 1953

Table VI

which have a free hydroxyl group in the molecule. That they may be formed by various combinations is obvious because of the established presence in lanolin of hydroxyacids and of diols. In any event, all hydroxyesters have free hydroxyl groups which in these samples are responsible for 83% or more of the hydroxyl number of lanolin. In terms of percent composition of the last sample this represents a maximum of 4% free alcohols, the balance, or 96%, being esters.

It would now be proper to look further into the possible structure of the lanolin esters as found in nature. Based on the known variety of alcohols and acids, we can expect a great many combinations ranging from simple monoesters to diesters, cyclic esters, and possibly higher polymeric derivatives. However, the indications are that the lanolin esters are not random combinations of the alcohols and acids. There is evidence in the data presented here and in the work of Truter¹³ and of Bertram¹ that a substantial part of the lanolin esters are diesters of hydroxyacids.

Indirect evidence for the presence of diesters in lanolin can be deduced from the relationship between the hydroxyl number of lanolin esters and the hydroxyl number of lanolin acids. Acids constitute approximately 50% of the esters whose hydroxyl number is in the range of 24 to 29. Therefore the fatty acids liberated from lanolin monoesters should have a hydroxyl number twice that of the esters, or a range of 48 to 58. The corrected range of hydroxyl number for our acids is 62 to 88 and we must conclude from the difference in these ranges that a considerable amount of diesters is present in lanolin.

Further evidence that the combinations are not random is given by Truter¹³ who could not isolate straight chain esters by means of the urea method of complex formation in anything but negligible quantities. If random combinations were the rule, at least 12% of such esters should be present.

Bertram¹ calculated that diesters constituted 91.5% of the esters of the American and 31.7% of the esters of the Australian wool fat.

The actual separation and identification of individual lanolin esters is an immense task, but great impetus has been given to this type of investigation by new methods and modern equipment. Urea may be used as a complexing agent to separate lanolin into straight, branched chain, and cyclic ester groups. In 1952 Tiedt and Truter¹⁸ subjected a fraction of lanolin

to an eighty-five stage systematic fractional crystallization, resulting in the isolation and identification of three cholesterol monoesters of branched chain acids. They also isolated a diester of a hydroxyacid and another hydroxyacid of unknown structure whose molecular weight, 489, is considerably higher than for any hydroxyacid isolated hitherto from lanolin.

These findings are consistent with the idea that lanolin esters as formed in nature may be simple or exceedingly complex, and confirms the suspicion that degradation during separation and analysis has added greatly to the difficulties in elucidation of the chemical structure of the unaltered lanolin.

The data which have been presented offer a systematic approach to the development of new products from lanolin.

Hydroxyesters are not normal constituents of the human skin lipids whereas they constitute a large portion of lanolin.

We felt it would be of interest to react the hydroxyl group of lanolin with naturally occurring acids and thus form higher molecular weight esters which would no longer have free hydroxyls. On the basis of this change and in view of the fact that hydroxyl groups are often associated with allergy, we looked for a decrease in the allergic activity of the modified lanolins. Clinical studies carried out by Sulzberger and his associates on Modulan and Elfanol, two of the modified products, have indicated that our chemical modifications of lanolin have resulted in a definite reduction in allergenic activity^{28, 29}. The fundamental change brought about in lanolin by so reacting the hydroxyl groups is apparent when one considers that the modified products do not form water-in-oil emulsions while their increased hydrophobicity makes them clearly soluble in cold mineral oil.

The reactivity of lanolin has been used to advantage in making water-soluble derivatives. Now in development are both water and alcohol soluble derivatives of the hydroxy acids of lanolin wherein both hydroxyl and carboxyl groups have been reacted to get new effects.

The multiplicity of lanolin components masks the individual properties of many of the constituents, some of which have unique surface-active, and hence penetrating and emollient effects. An understanding of lanolin composition is the prerequisite to separation, evaluation and cosmetic and pharmaceutical applications of these natural materials which are the active factors in the Amerchols.

In studying the emulsifying properties of lanolin another interesting application can be made of the data which have been presented.

The ability to form water-in-oil emulsions is the outstanding characteristic of lanolin but a study of the literature for the past thirty years reveals only disagreement as to which fraction endows lanolin with this property.

In the recent literature, Malmstrom²⁰ in 1949 found "no indication that the free, combined or total cholesterol had any effect on the water absorption power of lanolin, and concluded that the water absorption properties were due to the composition of the mixture."

Bertram¹, whose data have been presented here in detail, attributed the emulsifying properties to the high molecular weight diesters of hydroxyacids. Tiedt and

Truter²⁰ carried out an extensive investigation in 1952 and concluded that the esters of lanolin were incapable of forming emulsions by themselves. They attributed the emulsifying power to the free alcohol content and to a minor extent to the free acids. These authors found, as have others, that mixtures of the alcohols were better emulsifiers than a pure single alcohol. They also reported that the diols in the alcohol fraction were the most active of all.

It was mentioned previously that Fieser had isolated a diol from a fraction of lanolin alcohols supplied by American Cholesterol Products. This fraction, because of its surface-activity is used in the production of the Amerchol emulsifiers. Dr. Fieser has further reported that the diol was tried as a coemulsifier and found to be more promising than cholesterol.

It might be of interest to add some of our own observations on emulsification. If lanolin is modified by reacting its hydroxyl groups, as mentioned, the emulsification property disappears. The addition of a surface-active extract of lanolin alcohols to this modified lanolin, and as a control to USP lanolin—results in marked improvement in water absorption in each case—but the water absorption levels of modified lanolin remain far below those of the USP lanolin. This indicates that in addition to the free alcohols, hydroxyesters might play a part in the emulsification properties of lanolin. These hydroxyesters may not be restricted to diesters as stated by Bertram, but could include monoesters of hydroxyacids.

We find that lanolin fatty acid mixtures free of alcohols containing 40% of hydroxyacids, emulsify almost as well as lanolin USP. The addition of these acids to Modulan and to USP lanolin results in marked improvement in the former and slightly decreased water absorption in the latter indicating the relative position of these acids with reference to water absorption.

It appears that the alcohols are by far the most active emulsifiers of lanolin, the diols perhaps best of all. The hydroxyesters apparently have emulsifying properties but no direct evidence has been obtained, and additional data are required to evaluate the extent of this activity. The lanolin acids are fair water-in-oil emulsifiers, but they are present in USP lanolin in such small quantities that it is doubtful whether they have any significant effect on emulsification.

The chemistry of lanolin has entered a period of enlightenment which promises to unravel many of the mysteries of this complex substance. We already have a new concept of composition which is serving as the basis for the development of more effective products from lanolin and its components.

Bibliography

- 1 Bertram, S. H., *J. Am. Oil Chem. Soc.*, 26, 454-56 (1949)
- 2 Weitkamp, A. W., *J. Am. Chem. Soc.*, 67, 447-54 (1945)
- 3 Drummond, J. C. and Baker, L. C., *J. Soc. Chem. Ind.* 43, 232-38 (1929)
- 4 Lower, E. S., Crode publication "Lanolin" (1951)
- 5 Hembrough, G. R., *Chem. Prod.* 175-78, (May, 1953)
- 6 Warth, A. H., *The Chemistry and Technology of Waxes*; Reinhold, (1947), pg. 77
- 7 Horn, D. H. S. and Hougen, F. W., *Chemistry and Industry*, 670 (August 1951)
- 8 Fieser, Louis F., Harvard University, Personal Communication (1953)
- 9 Tiedt, J. and Truter, E. V., *J. Chem. Soc.*, 4628-30 (Dec. 1952)
- 10 Murray, K. W. and Schoenfeld, R., *J. Am. Oil Chem. Soc.*, 29, 416-20 (1952)
- 11 Daniel, D., Lederer, E., and Velluz, L., *Bull. Soc. Chim. Biol.* 27, 218-25 (1945)
- 12 Lower, E. S., *Industrial Chemist*, March, May, October (1947)
- 13 Truter, E. V., *Quarterly Reviews (London)* 5, 390-404 (1951)
- 14 Horn, D. H. S., Hougen, F. W. and von Rudloff, E., *Chemistry and Industry* 106 (1953)
- 15 Deuel, H. J., *The Lipids*, Vol. I, Interscience 1951, pg. 370

- ¹⁶ Fieser, L. F. and Fieser, M., *Natural Products Related to Phenanthrene*, Reinhold, ACS Monograph #70, 3rd. Ed. (1949) pg. 648-9
¹⁷ U.S. Department of Agriculture, Eastern Reg. Res. Lab., *Personal Communication*, (1953)
¹⁸ Tiedt, J. and Truter, E. V., *Chemistry and Industry*, 403, (May, 1952)
¹⁹ Malmstrom, I. W., *J. Soc. Cos. Chem.*, 1, 241-5 (1949)
²⁰ Tiedt, J. and Truter, E. V., *J. of Applied Chem.*, 2, 633-38 (1952)
²¹ Dreker, I. J. and Conrad, L. L., U.S. Patent #2,302,679 (1942)
²² Conrad, L. L. and Dreker, I. J., Australian Patent #177,961 (1944)
²³ American Cholesterol Products, Inc., British Patent #622,725 (1949)
²⁴ Horn, D. H. S. and Hougen, F. W., *J. Chem. Soc.* 3533-38 (Nov. 1953)
²⁵ Ruzicka, L., Denss, R., and Jeger, O., *Helv. Chim. Acta.* 28, 759 (1945)
²⁶ Mackenna, R. M. B., Wheatley, V. R. and Wormell, A., *Biochem. J.* 52, 161 (1952)
²⁷ Langdon, R. C. and Bloch, K., *J. Am. Chem. Soc.* 74, 1869 (1952)
²⁸ Sulzberger, M. B., Warshaw, T., and Hermann, F., *J. Invest. Derm.* 20, 33 (1953)
²⁹ Warshaw, T. G., *J. Soc. Cos. Chem.* 4, 290-96 (1953)

How to Invite a Heart Attack

TEN rules for inviting a heart attack were listed by Francis J. Curtis, vice president of the Monsanto Chemical Co. in an address before the American Chemical Society. The rules follow:

1. Your job comes first; personal considerations are secondary.
2. Go to the office evenings, Saturdays, Sundays, holidays.
3. Take the briefcase home on evenings you don't go to the office. This way you can review completely all troubles and worries of the day.
4. Never say no to a request; always say yes.
5. Accept all invitations to meetings, banquets, committees, etc.
6. Don't eat a restful relaxing meal—always plan a conference for the meal hour.
7. Regard fishing, hunting, golf, bowling, billiards, cards, gardening, as a waste of time or money.
8. Believe it's poor policy to take all the vacation allowed you.
9. Never delegate responsibility to others; carry the entire load yourself at all times.
10. If your work calls for traveling, work all day and drive all night to keep the next morning's appointment.

Conviction Counts

THERE is no doubt that the natural born salesman—the man who can sell diamonds, coal and cows, pickles and piccolos with equal ease—meets the dearest desire of any sales manager. And when he combines this natural quality of his with the conviction that comes from being thoroughly sold on your product, of knowing all about it, and of knowing, furthermore, all that it will—or won't—do for your customer—well, that kind of a salesman is unbeatable.

If you're ever in the position of hiring a man to represent you, pick the natural-born salesman by all means—provided he's willing to give up a few week's commission and learn all about your operation, and your customer's operations, from the ground up.

Otherwise, pick that kid out of the stockroom who knows the details of your business to a T, who eats, sleeps and dreams your product, and who is convinced you make the best widget money can buy. You can't buy his conviction for love or money.

The great trouble today with most young men entering sales is their lack of stick-to-it-ive-ness. They expect success to come overnight and therefore easily become

discouraged. They expect large expense accounts and when these are not forthcoming they are ready to throw in the towel. The kid from the stockroom will know better.—*York Trade Compositor.*

Marking Shipping Cases Properly

PROPER markings on shipping cases, the NWDA Bulletin points out, can give many pluses for manufacturers' products at little or no extra cost. Here is what adequate identification means along the entire line of distribution:

1. Lower warehouse handling costs
2. Better utilization of warehouse space
3. Fewer "out of stocks" and lost sales
4. Reduced order handling errors
5. More "silent salesmen"
6. Better wholesaler and retailer relations.

Collecting Unpaid Bills

CUSTOMERS feel bad enough about unpaid bills without being hounded by choice bits of correspondence. Here are some suggestions for giving collection letters more reading appeal. 1) Credit men recognize that each collection letter is an individual problem and should be written on a "person to person" basis. 2) If the letter is too long the prospect of reading it appears burdensome; and since you are interested in preserving the customers goodwill, the more words, the more tactful you must be. 3) Don't use an accusing tone in the first sentence and don't apologize for writing. Build up the feeling of importance through reference to the prestige of a good credit rating. If collections are tight why not try a new approach to credit letters. —*NWSA Executive Newsletter.*

Why Some Executives Fail

MOST executives who fail do so because they are not active, creative, imaginative individuals according to Morris I. Pickus in an address before the Synthetic Organic Chemical Manufacturers Assn.

The difference between a \$10,000 a year man and a \$40,000 a year man, said Mr. Pickus is that the \$40,000 man has the ability to accept heavy responsibility without undue anxiety, the capacity to make sound judgments under pressure with no panic or aggression, and the ability to get things done with the help of others.

There is no substance to the fiction that work can lead to any type of heart disease.—*Dr. Louis Katz in talk before Industrial Medical Assn.*

Here's a fact that's sad but true: By the time you have money to burn the fire has gone out.—*Houghton Line.*

Need for Skilled Aerosol Loader

Services necessary to insure proper packing of toilet waters and other fragrance products in aerosols. . . Advantages of ultra low pressure glass aerosols. . . Points for consideration

ARTHUR J. WAGNER*

IF the consumer acceptance of recently introduced glass aerosol toilet waters is any criterion, then make way for the new wonder in fragrance merchandising. Displayed early this year after the so-called consumer saturation period, Christmas, the first fragrances packaged in glass aerosols by Carven of Paris were introduced nation-wide, with no more fanfare than inconspicuous small space segments of larger newspaper ads by some of the department stores across the country.

Since the entry of Carven and its historic success, Lenthéric has also entered the field with six fragrances, five of which were old line brands, the sixth a new fragrance, Adam's Rib, and from all reports the acceptance has been as phenomenal as Carven's but on a much wider scale. Another star on the glass aerosol fragrance horizon is D'Estree #7 Parfumair recently introduced in this country by Yvonne D'Estree of Paris. What makes the latter quite unusual is that the glass aerosol is the only package in which this fragrance is being offered to the retailer for Eau de Parfum. The only other package they have is a perfume which appears in a conventional container. Thus, it is obvious to the keen sighted marketer, that the glass aerosol is not only the package of today for liquid fragrance products but the package of the future.

Haste Makes Waste, Sometimes

As in many other industries, some products were hastily packaged in this medium to capture the quick dollars the public wanted to spend, and it naturally followed that a number of products which should have had a glorious sales record faded to an ignominious end, due to the lack of knowledge, technique and skill on the part of both the marketer and aerosol loader because of the peculiar characteristics relative to aerosols.

Conversely, those products which were *not* hastily

* Vice president, Fluid Chemical Co., Inc.



A striking example of the streamlined styling permitted by the glass aerosol

put on the market, but which were thoroughly investigated and shelf tested in the laboratory of a competent loader, staffed with skilled technicians equipped with the necessary testing apparatus, soon became names to be conjured with in the marketing world.

Glass Aerosols—the Light in the Darkness

From our humble perch, eyeing the fragrance field and listening to the scuttlebut of the trade, we have come to the opinion that the merchandising genius who finds a way to put on a "5 for 1" or "6 for 1" sale instead of a "2 or 3 for 1" sale, appears to be the angel of deliverance the industry is eagerly awaiting. As far as we can see, this is the result of hopeless thinking on the part of men whose creative spark has been dimmed, by the panicky actions of sales people despaired by reduce profits. If these men will fairly evaluate the myriad facets of sales impulse generated by the glass aerosol, they will not cast it off as another 'gimmick' but will hasten to take advantage of its sales getting appeal without resorting to cut-price deals.

The industry as a whole is not far removed from its merchandising practices of a quarter century ago. While the T. G. A. and similar organizations have done much in the way of creating order out of chaos and improving trade relations and practices, and with the Fragrance Foundation on the other hand doing a remarkable job with limited funds in making America fragrance conscious; one, if he were to honestly appraise the merchandising of fragrance and cosmetic products over the years, would surely agree that the glass aerosol appears to be a true light in the darkness which could lead to another

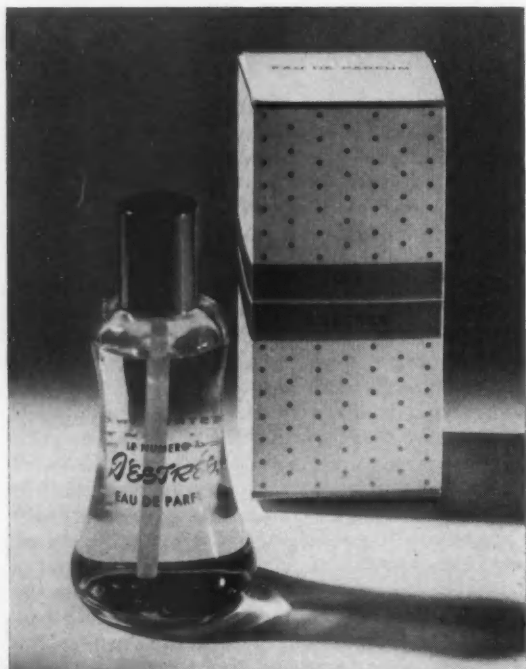
great day of profit—profit created from a wider and greater consumption of fragrance products because of the naturally accepted easy-to-use aerosol principle.

Selling Prices—Retail

In discussing the feasibility of introducing the glass aerosol package to a fragrance line, the retail selling price of the product is naturally a prime consideration. Most opinions concur that on the so-called popular priced lines \$2 seems to be the top for any article which would do a volume business. But, if one were to investigate other products, such as for example shaving cream, he would find that the aerosol product which sells at an average price of 79¢ for a 6 oz. container, is rapidly outselling the very same product packed in a tube or cake at prices ranging from 10¢ to 49¢, proving once again, that the public likes and wants the aerosol principle, price not being a deterrent. Or, take the case of hair lacquer. Once, only applied to milady's coiffure by the operator at her beauty salon it is currently being sold at the rate of 20 million aerosols a year. As late as 1952, not a single hair lacquer aerosol was on the market. This proves that aerosol is the magnetic principle which attracts consumer dollars, retail price notwithstanding.

Fragrance, a Natural for the Glass Aerosol

These two aforementioned types of personal products and their sales acceptance and demand, augurs well for the success of any fragrance packaged in glass aerosols. It also gives reason to expect that the consumer will prefer this type of package and doesn't mind paying a bit more for this easy-to-use convenient container. Furthermore, if any product lends itself to aerosol application, fragrance above all, is at the very top of the list.



The glass aerosol may well spell a new high in fragrance volume.

The glass aerosol is the newest member of the growing aerosol family, and has its own peculiar characteristics and problems. Until now, we have had high pressure aerosols (up to 100 PSIG), low pressure aerosols (up to 45 PSIG); but in glass we have a new form, commonly called ultra-low pressure aerosols (14 PSIG). This type of aerosol has opened the door to fragrance. Glass is the most natural package for fragrance, since glass containers are more attractive and most suitable for milady's dressing table.

Points for Consideration

The ultra-low pressure system, necessary for glass aerosols, would not have been possible without the development of freon 114 by DuPont. Extensive laboratory research and analysis have conclusively shown that when properly formulated, (Zonite system) perfume oils mixed with alcohol and freon 114, remain free of odor distortion, while other members of the freon family of propellants are likely to change the characteristics of the fragrance. This distortion, has been the chief worry of the perfumer whose primary concern is the odor quality of his product.

Now that this bugaboo has been eliminated, all that remains for the perfumer is to have his fragrance carefully evaluated by a competent aerosol loader, who is versed in the handling of such delicate materials as essential oils. In this respect, the perfumer should be as critical in the selection of an aerosol loader as he would be in selecting a key member of his own staff. Quality has no substitute. Glass aerosols are new, and likewise, the technique is new. Therefore, the perfumer must of necessity be ultra-selective of his aerosol loader in order to avoid the risk of improper odor duplication and continuity. Because perfume oils are so delicate and subject to odor contamination, certain safeguards are necessary when glass aerosols are being manufactured. For example, an aerosol loader who fills all types of products on his equipment, naturally exposes this equipment to many products which are harmful to fragrance oils. Such equipment, being difficult to properly cleanse and deodorize could defeat any other precaution the loader might employ. Also, assuming that a loader was using special equipment for fragrance only, and it was properly cleaned, but, 10 or 15 feet away, he was loading a particularly odoriferous product then the subject of air contamination is extremely likely. Therefore, a loader should set apart, a place in his plant which is completely divorced from his other operations. His housekeeping program must be vigorously maintained and his equipment kept scrupulously clean.

This isolation and precaution presents a cost factor to the loader, whose costs on glass aerosol production are already high, due to the lack of automatic equipment, not to mention the variance in shape and designs of bottles he is called upon to fill which present a problem not present in the loading of aerosol cans. These, plus other problems, result in slower production necessitating higher filling charges. But only a good product, skillfully produced, will bring the customer back for a repeat order; and conversely, a poor product can hurt not only that particular item, but other items in the marketer's line as well. At this point

it would be well to consider the words of John Ruskin who said, "There isn't any product that cannot yet be made cheaper . . . and poorer!"

Does this Sound Familiar?

The writer happened to be in the reception room of a very prominent French perfumer waiting for an appointment; at the same time, two ladies were heatedly berating a young lady employee of this perfumer who was trying her very best to pacify these women whose complaint was that "this" costly perfume which was given as a gift to one of the two *did not smell the same as it did when she had received it, and as a matter of fact it had an obnoxious odor . . . and what was the company going to do about it!*" To the consumer this mutation is cause for annoyance and dissatisfaction and may lead to refusal to make further purchases of the product. To the perfumer, who lent his art to creating a masterpiece, enrobing it in a bottle of fine crystal worthy of such contents, this chemical change is the bane of his existence, over which until now he has had little control. The consumer complaint that the fragrance has deteriorated in odor characteristics is eliminated when the fragrance is properly packaged in a glass aerosol because, once it is sealed, *air*, the arch-enemy of fragrance, is completely locked out and can never enter the bottle. However, should the glass aerosol be faulty and leak, the freon escapes at once, making it impossible to operate the aerosol. Once the freon escapes it is impossible to apply the fragrance short of breaking the bottle. The worst thing that can happen is the return of such a bottle for a replacement, but at no time would such an event cause a consumer to be displeased with a fragrance because of its odor depreciation. Irrespective of the contour, design and craftsmanship in the creation of the perfume container and stopper and, despite the 'leak-proof' claims of the manufacturers of atomizers and attachments, the homeliest glass aerosol is superior to any container yet devised for fragrance regardless of cost.

Right Choice of Polyols Upgrades Quality of Toothpastes

FOR a salable product, the toothpaste manufacturer must be concerned with many properties besides its cleaning ability. The final product must be soft and homogeneous, it must be stable and maintain its plasticity during shelf life. To promote these properties, the manufacturer must choose the right polyol for use as the vehicle in his paste. Because the polyol sorbitol dries out more slowly than other conditioning agents in dry atmosphere, and maintains a higher viscosity in damp atmosphere than other conditioning agents, it presents many advantages as a humectant. The use of sorbitol gives a full-bodied paste which holds its consistency well. Sorbitol is compatible with common toothpaste ingredients, and blends well with magnesium and calcium carbonates and phosphates. Since it is itself sweet, sorbitol permits the use of less saccharin or other sweetener.

Clinical tests have demonstrated that sorbitol has no



Introduction of Carven's aerosol fragrance was a phenomenal success, opening the eyes of other manufacturers.

irritating effect on the buccal membranes. It does not contribute to the formation of dental caries.

A typical toothpaste formula, using Sorbo* (70% aqueous solution of D-sorbitol) as the paste vehicle is illustrated by Formula No. 1.

Toothpaste (Soap or Detergent Type) Formula No. 1

Abrasive and polishing agent	30.0 to 50.0%
Powdered soap or detergent	1.0 to 6.0%
Sorbo	30.0 to 60.0%
Sweetener	0.1%
Flavor	0.5 to 3.0%
Lubricant	1.0 to 1.5%
Water	0.0 to 30.0%
Thickener	0.0 to 1.5%

Recent claims that the use of agents which will lessen the activity of acid-producing bacteria will reduce the incidence of dental caries have led to interest in toothpastes containing materials such as dibasic ammonium phosphate-urea combinations, which release ammonium ions. Such a paste is illustrated in Formula No. 2.

Ammoniated Toothpaste** Formula No. 2

Tricalcium phosphate	38.67%
Urea	13.00%
Dibasic ammonium phosphate	3.00%
Sorbo	14.50%
Glycerol	10.00%
Water	16.64%
2,2'-di-hydroxy-5,5'-dichloro-diphenyl methanol	0.25%
Sodium lauryl sulfoacetate	2.00%
Aminoacetic acid	0.34%
Carboxymethylcellulose	0.28%
Flavor oil	1.10%
Saccharin	0.22%

* Registered trademark of Atlas Powder Co.
** U. S. Patent 2,588,324 Dental Paste.

One of the greatest labor saving inventions of today is tomorrow.—*The Item*.

Technical Abstracts

Analysis of Hair Dyes and Rinses. **Analysis of Mixtures of p-Aminophenol and p-Phenylenediamine or 2:5-diaminotoluene.** S. H. Newburger and J. H. Jones (*J. Ass. Off. Agric. Chem.*, 1953, 36, 3, 784-789).—p-Phenylenediamine, 2:5-diaminotoluene and p-aminophenol are quantitatively extracted by ether with a conc. NaCl soln. buffered with NaHCO_3 . After diacetylation a mixture of p-aminophenol with either (but not both) of the other substances can be analyzed spectrophotometrically with reasonable accuracy. *Analytical Abstracts* May, 1954, Abstr. 1000.

Skin Reactions. H. Stupel. *Parfumerie und Kosmetik*, 35. Jahrg., Nr. 5./54.—The protective effect of the human skin against external influences is based on a complex of various characteristics. Detergents upset the balance and the influence can be due to various causes and have various effects. The harmful influence can be reduced by certain additions. Through *Chem. Abs.*

Odors and Fragrances. R. Pantaleoni (*Chem. Engng News*, 1953, 31, 1730-1734).—Desirable properties of commercial deodorants are discussed. E. J. Collett. Through *Brit. Chem. Abs.*

Isopropyl Myristate. G. S. Pears (*Perfum. essent. Oil Record*, 1953, 44, No. 3, 84-90, 101).—The properties and characteristics of this ester in relation to its use in cosmetics and pharmaceuticals are described. Its beneficial effects in powder make-up and lipstick are pictorially illustrated, and 22 formulations covering cosmetics, pharmaceuticals, and liniments are given. G. Helms. Through *Brit. Chem. Abs.*

Chemistry of Western Australian Plants. VIII. Essential Oil of *Eucalyptus Eudesmioides* bark. A. Blumann, M. Michael, and D. E. White (*J. chem. Soc.*, 1953, 788-789).—The essential oil isolated from the bark of *Eucalyptus eudesmioides* by extraction with light petroleum and Et_2O followed by steam distillation of the residue after removal of the solvents contains cineole, (+)-borneol, and globulol, m.p. 87° , $[\alpha]_D^{25} -42.3^\circ$ (1.0 in CHCl_3) [3 : 5-dinitrobenzoate, $\text{C}_{22}\text{H}_{28}\text{O}_6\text{N}_2$, m.p. 139.5° , resolidifying and melting

at $196-198^\circ$ (decomp.); phenylurethane, $\text{C}_{22}\text{H}_{31}\text{O}_2\text{N}$, m.p. 144.5° , $[\alpha]_D^{25} -69^\circ$ (1.84° in COMe_2), by interaction of globulol (0.3 g.), $\text{C}_6\text{H}_5\text{N}$ (1 ml), and PhNCS (0.3 ml.) at room temp. for 3 days when H_2O (2 drops) is added], a sesquiterpene alcohol previously obtained from *E. globulus* oil. I. Jones. Through *Brit. Chem. Abs.*

Oakmoss. F. Chatelain (*Perfum. essent. Oil Record*, 1953, 44, No. 3, 91-95, 105).—The prep and formulation of oakmoss tinctures, concrete and absolute oils, resinoids, liquid oils, the methods of decolorising, and the distillation apparatus used are described. G. Helms. Through *Brit. Chem. Abs.*

Solubility Test for Citronella Oil. C. T. Bennett (*Proc. XIth Int. Congr. pure appl. Chem.*, 1947 [1953], 5, 1213-1215).—Past and present solubility tests used as control of the purity and quality of citronella oil are reviewed. The advocated 'London' test consists of the addition of one vol. of the oil to 1-2 vol. of 80% alcohol (by vol.) at 20° when it should give a clear solution, and only faint opalescence with no separation of oil drops on standing overnight with a total of 4 vol. of 80% alcohol at 20° . D. E. Blenford. Through *Brit. Chem. Abs.*

Chemical Aspect of the Ageing of Essential Oils, Especially Citrus Oils, and of the Maturing of Perfume Mixtures. H. J. Strausz (*Proc. XIth Int. Congr. pure appl. Chem.*, 1947 [1953], 5, 1277-1285).—The chemical deterioration is due, in the main, to cyclisation, resinification or rearrangement of γ - and *iso*-citral, and/or the autoxidation of *D*-limonene. Some preservative action is effected by use of selected antioxidants and careful pretreatment and storage. Little data is available regarding the chemical and physical changes involved in the necessary maturing of perfume mixtures, but use of suitable frequency radio waves is suggested to shorten this period. D. E. Blenford. Through *Brit. Chem. Abs.*

Collaborative Chemical Assays of Water-Soluble Chlorophyllins. James C. Munch. *Drug Standards*, Vol. 22, Nos. 5-6, p. 121.—Collaborative studies were instituted with some fifty cooperating chemical laboratories to determine the accuracy and precision of a

proposed method of assay for water-soluble chlorophyllins. Reports of collaborators on three samples of the copper chlorophyllin and one sample of iron chlorophyllin are presented, together with their comments. Through *Chem. Abs.*

Fluorine in Tea and Caries in Rats. J. Gershon-Cohen and J. F. McClen-don (Albert Einstein Medical Center, Philadelphia, Pa.). *Nature* 173, 304-5 (1954).—In view of the high natural content of F in tea, tea infusions contg. 20 p.p.m. of F were fed to mature Wistar rats. A control group was exposed to 0.02 p.p.m. of F in their drinking water. After 16 consecutive weeks both groups of animals were severely affected with osteoporosis and alveoloclusia, with no significant differences between them. Through *Chem. Abs.*

Dandruff. To The Editor:—A patient has dandruff that has responded well to selenium sulfide (Selsun). However, the dandruff is becoming heavier. It clears immediately after application but returns in four or five days. Please suggest some alternate type of therapy to clear this patient's scalp. John A. Putnam, M.D., Carthage. **Answer.**—All textbooks of dermatology discuss the condition (alopecia seborrheica) fully and list remedies for it. A time-tested one consists of a mixture of 3% salicylic acid and 5% sulphur precipitate in hydrophylic base. The concentrations may be increased or decreased if necessary, and the ointment should be applied often enough to control the scaling. J. A. M. A. June 19, 1954, p. 803. Through *Chem. Abs.*

Emulsion-Forming Liquid Product. Harold A. Clymer and Mary Cecelia Ginkiewicz (Smith, Kline & French Labs.). U. S. 2,675,343. A pharmaceutical carrier, in which a medicinal agent can be stored and which forms a semi-solid emulsion with water at room temperature, consists of a mixture of polyoxyethylene sorbitan fatty acid derivative, lauryl alcohol, and/or a liquid ester of lauric acid in which the alcohol portion of the ester is a lower alkyleneglycol or diglycol. *J. Am. Oil Chemists Soc.* 31, June, 1954 p. 273. Through *Chem. Abs.*

Musc Reproduction. F. Carter (Carvansons, Ltd., London). *Perfumery and Essential Oil Record* 43, 296-7, 312 (1951). Pilot plant studies of the nitro-musks, musk xylol, musk ketone, and musk ambrette are offered. C.A. 46, 4, 1718, (1952).

Simple

Floral Perfumes

A continuation of last month's article . . . To-the-point descriptions of selected floral odors

E. S. MAURER, F.C.S., M.R.I.*



THE following is a list of selected floral odors. The letter preceding the name of each odor refers to tables in the first part of the article in last month's issue.

(A) HONEYSUCKLE. The Woodbine or Woodbind is sometimes referred to in the older herbals as Caprifoly, from the natural order *Caprifoliaceæ*, this "goat's-leaf" association being also observed in the French and German names for this plant, namely, *chèvrefeuille des bois* and *Geissblat*. Although there are many varieties to be encountered, the perfume is a very elusive note to capture, but as this is really a night-scented flower, I would select the *Lonicera japonica* as a general representative of the series; simulating the fragrance of the flower by a carefully proportioned blend of jasmin, neroli and rose, and etherealising with tuberose and cassie. Incidentally, for those who care to read further, W. H. Hudson, in "Hampshire Days," has some very interesting impressions upon the nocturnal fragrance of the honeysuckle.

(K) CERINTHE. From honeysuckle to honey is but a short step; to simulate the neroli-rose backing of the former and accentuating with appropriate phenylacetates and rendering the note slightly violet and ænanthic, is a fairly simple technique. Such a procedure is my impression of the cerinthe—the name signifying honeycomb in Greek, but more obviously so in the French—*le mélinet*. The anglicised form is derived from the Italian Cerinta, in which country it is a very common plant, having attractive purple flowers with a yellow tube-like receptacle laden with the fragrant honey juice—hence the name, in the older English herbals, of the Great Honeywort.

(Q) FREESIA. Not all the freesias exhibit a pleasant fragrance, some varieties having an odour not unlike that of the knotted figwort (*scrophularia nodosa*) which shares with certain South African flowers, such as those

of the *Stapelia hirsuta*, a complex indoloid scent resembling decaying meat.

The conservatory freesia which does, however, find favour seems to be the *F. refracta* but, bearing in mind that it is a member of the N.O. *Irideæ*, one can seek something from the violet for the base of the conventional perfume, as well as from the lily, as other species include the lotus and the *Ixias* and similar dwarf *gladiolæ*; there is also somewhat of a honeyed-rose background, so that the build-up proceeds along a rose-violet-lilac facade, but embellished with a trace of peach lactone and propyl butyrate to achieve the characteristically fruity apricot-plum topnote.

(T) CYCLAMEN. This name is also of Greek origin, signifying circular, in alluding to the roundness of the leaves or the roots. We have by now probably become accustomed to the usage of "cyclamen aldehyde" which undoubtedly closely approaches the fragrance of the Persian cyclamen but, bearing in mind that the simple old-fashioned flower is of Austrian origin and a member of the primrose family, it is agreeably surprising to note that, if the green notes of violet, lilac and muguet are accentuated and backed with a little tuberose and a trace of vanilla and peach, the resulting aroma is a very close simulation of the more delicate fragrance of the *Cyclamen europæum*.

Tobacco-Flower

(J) TOBACCO-FLOWER. It is interesting to note that the *Nicotiana tabacum* belongs to the N.O. *Solanaceæ* (Latin: solanum = comfort), which group contains many soothing and narcotic plants, but in common with the evening primrose, night-scented stock, jasmin and honeysuckle, it is with the approach to dew point in the cool of the evening that these peculiarly ethereal and almost anæsthetic fragrances are liberated.

Without doubt, the jasmin element is very prominent in the build-up of this perfume, but I think that if the tonal elements are kept simple, the results are far bet-

* Chief chemist, A. G. Hersom, Kingston-on-Thames, England. Reprinted from the Journal of the Society of Cosmetic Chemists Vol. V, No. 3, Nov. 1953, pp. 179.

have you tried AMERCHOL®

LANOLIN CHOLESTEROLS in their most active form.

The Amerchols are safe, non-ionic, natural EMULSIFIERS, PENETRANTS and EMOLLIENTS. They will help you achieve superior cosmetic and pharmaceutical formulations by markedly improving stability, texture, appearance and effectiveness.

An Amerchol such as the multi-sterol, liquid Amerchol L-101 enhances softening, penetrating and spreading activity while holding desirable moisture to the skin. The surface active Amerchols function at the interface in oil-in-water emulsions to bring about these unique effects.

The Amerchols are ideal ointment bases since they are stable, induce rapid drug release, and promote optimum healing rates.

WE KNOW OF NO CASE OF AN ALLERGY DUE TO AN AMERCHOL.



AMERICAN CHOLESTERYL PRODUCTS
INCORPORATED
MILLTOWN • NEW JERSEY

Write on your business letterhead for
technical literature and suggested formulas.

ter than those which include among many components some organic chemicals of particularly harsh odour.

For instance, in the tobacco-flower motif, I think both the lilac and lily are necessary components to the jasmin, and if in these bases the terpineol content is replaced with cyclamen aldehyde, the result is a good simulation of the ethereal fragrance of the living flower, observed under appropriate conditions. Furthermore, if to the above base, when finalised, a little labdanum, clary sage or mimosa is added, the warmer and oriental note of the *N. acuminata*, more familiar as Latakia, shows a pleasing alternative.

(D) MAGNOLIA. Although it would appear from the literature that most impressions of the fragrance of the *M. grandiflora* are based upon ylang, I find in some of the earlier horticultural texts an agreement upon a basic lily-of-the-valley odour.

Jasmin is again an essential and, if the cyclamen-muguet base, as used for the nicotiana, is supplemented by neroli with a slightly balsamic undertone, such a compound, when diluted with spirit and sprayed, develops a note very similar to the characteristic, linden-ylang fragrance of the distance-wafted perfume of the magnolia in full bloom.

(B) LABURNUM. This readily comes to the mind as an elegant tree, drooping its golden chain (or rain) of blossoms, which are practically odourless. The Latin name of this tree would appear to be derived from the "hour of labour," an allusion to the habit of the leaflets closing by night and expanding by day. It is, however, also known by its Alpine names of *L'aubours* and *Cytise des Alpes*, the latter being the French equivalent for the bean-trefoil. Occasionally another synonym is encountered, namely, the Sweet-pea tree," which causes no undue surprise, as botanically the Laburnum is a member of the *Leguminosæ*—the bean and pea family—and, furthermore, it is closely related to the Common Broom. It is, however, with the *L. nigra* or black Cytisus that we encounter a laburnum of perfumery interest. Although only occasionally encountered in England, this is not a tree but a shrub, which seldom grows higher than three or four feet, but the fragrance of this Silesian plant also has the jasmin-neroli fundamental of the magnolia, ylang and similar zephyr-wafted odours, and if this base is complemented by violet, the tonality is then in close agreement with the similar air-borne scent of a field of bean blossoms.

(O) CLEMATIS. The *C. vitalba* (Greek: = klema, a vine twig, Latin: = white vine) resembles the honeysuckle and wistaria in its climbing and rambling habits, but the blossoms of this hedgerow "traveller's joy" and most of the domesticated varieties are practically odourless, while some species (for instance, the *C. flammula*) are acrid and resemble poison ivy, inasmuch as handling corrodes and inflames the skin, whence it has been named *la flammule*.

There are, however, more agreeable species, and among these are certain non-climbing plants which show more clearly the relationship to the buttercup family to which the genus belongs, and of these, the *C. maritima*, the Algerian winter-flowering clematis, is perhaps the best known. This possesses a very sweet and attractive fragrance, which I believe can be matched by a warm amaryllis note based upon neroli and muguet with a somewhat subdued violet-iris background.

(R) DAPHNE. Although perhaps more familiar as the mezereon, this flowering shrub, known in some districts as the spurge laurel, spurge olive or dwarf bay, usually has a myrtle-blossom type of odour, but more definite fragrances are observed with many of the much smaller species. For instance, the *D. indica* and the *D. cneorum* seem to partake somewhat of the convolvulus violet-muguet background, but accentuated by a strong rosy note, and bases compounded along these lines without further embellishment closely resemble the odour of the living plants.

(M) WISTARIA. Like the laburnum, this also belongs to the N.O. *Leguminosae*, the best-known species of which are the *W. sinensis* (or *chinensis*), the Chinese kidney-bean tree. The immensely long sprays of delicate mauve flowers of the far-famed *W. multijuga* (or *floribunda*) are associated throughout the world with the name of Japan, but the odour of these blossoms is comparatively faint when compared with that of the early-flowering white wistarias,—the glycines or bujacias. The fragrance of the blossoms of this alba or white species closely approaches that of the fundamentals of the honeysuckle and clematis, but requires a little backnote support from tuberose and cyclamen.

(L) APPLE BLOSSOM. This is included within this group because it is evident, from many perfumery catalogues, that the apple blossom fragrance finds a growing acceptance, particularly in America. It is noteworthy that the floral calendar in Japan follows a beautiful sequence of these short-lived "confetti" or "snow-flake" fruit-tree blossoms—the plum, peach and cherry—the fragrance of which, including that of the apple, apricot and pear, can be achieved in comparative simplicity by carefully balanced variations upon the rose-neroli-lilac theme, appropriately shaded with hawthorn, mimosa and ylang.

(P) COWSLIP. The *Primula veris*, common cow's-lip or paigle (French: la primevère). It is remarkable that such small blossoms are able to exude so powerful and lasting a fragrance, which incidentally is rapidly imparted to dilute spirit after a few minutes' maceration.

The odour pattern can, I think, be found in the lily-lilac complex in which the neroli is subdued, but in the cultivated varieties, for instance, the *P. japonica* or the *P. rosea*, some slight assistance from the wintergreen and clover salicylates is a necessary adjunct. If clary sage is used instead, then a very close simulation to the deeper-toned fragrance of the *P. elatior*—the Oxlip, results.

(S) NIGHT-SCENTED STOCK. The Stock-gilliflowers (French: giroflée de Mahon, des jardins; Violier d'été, or *Matthiola annua*) present an intriguing gamut of fragrance, the fundamentals of which are somewhat elusive, as this would seem to partake somewhat of the rose-jasmin of honeysuckle, and the muguet-lilac from the tobacco-flower, as well as some elements from the cowslip. Expressed in its simplest units, however, lilac, lily and rose provide a good foundation, to which the addition of the hawthorn-mimosa topnotes of apple-blossom rounds off the bouquet in a very pleasing manner.

(G) AZALEA. I can find no satisfactory reason for these beautiful shrubby plants, with their richly coloured,

have you tried

MODULAN

The MODIFIED LANOLIN with new properties.

Modulan is chemically treated lanolin containing all the constituents of lanolin modified by a unique treatment to impart NEW and VALUABLE PROPERTIES.

Modulan forms clear solutions even in cold mineral oil and deposits hydrophobic, emollient films on skin and hair. These desirable protective films are waxy rather than tacky and are very pleasant to the touch.

Modulan is extremely hydrophobic—does not form greasy emulsions and is practically odorless. CLINICAL INVESTIGATIONS HAVE INDICATED THAT IT IS HYPO-ALLERGENIC.

Because of its solubility in mineral oil and its outstanding compatibility with oil-in-water emulsions and with soaps and shampoos, Modulan is particularly recommended for use in creams, lotions, baby products, hair preparations, make-up, and ointments.



AMERICAN CHOLESTEROL PRODUCTS
INCORPORATED
MILLTOWN • NEW JERSEY

Write on your business letterhead for
technical literature and suggested formulas.

highly fragrant bell-shaped flowers, deriving their name from the Greek word—azaleos, meaning dry. The plant is a native of the Far East, as well as of N. America, and some indication of the perfume can be observed in such common names as Mayflower, and the wild, upright or American Honeysuckle. The flowers, single and double, are of many colours (for instance, *A. indica*, a brilliant crimson, and *A. pontica*, a bright yellow), but for the greatest beauty in colour and fragrance the *A. sinensis* is regarded in Japan as the sweetest-smelling of the innumerable varieties, for the cultivation of which special gardens are maintained.

In a general way, the floral composition shows the elements of muguet, rose and jasmin, almost any proportion of which will yield a recognisable azalea perfume, but embellishment with traces of cyclamen and hyacinth is advantageous.

(F) OLEANDER. The Oleander (*nerium*) is usually described as a flowering shrub belonging to the *Apocynaceae*, having long dark green leaves and fragrant white, cream or rose-coloured flowers. As a species, the oleanders are closely allied to the Rhododendrons and are sometimes called Rose Bay, or in French laurier-rose.

The white-flowered variety, usually known as Rhododaphne, may be taken as a typical example for fragrance, and this particularly sweet-scented species may be emulated by a careful blending of rose, jasmin and lilac, in which the rose is dominant.

(H) ROCKET. The double sweet-rocket, *Hesperis matronalis*, and *H. violaceae* or *H. tristis*, derive their name from Hesperis, the Greek for "Evening Star," which introduces another species renowned for their nocturnal fragrance.

From the common names in English—Dame's violets or Damask-violets; Queen's- or Winter-gilliflowers, and in French, la Juliane de nuit; la giroflée musquée, or la violette des dames—it will be remarked that the violet element is evidently prominent, and this, when supported by lilac and a fairly large proportion of jasmin, completes a close simulation of la cassolette or the "smelling-bottle," as it is sometimes known on the continent.

(N) LOTUS. These *Nymphaea*, "Queens of the aquatic flora," need a brief introduction because, from the perfumery angle, little seems extant. The *N. alba*, or white water-lily, fairly common in England, is scentless, but the more prolific yellow *N. luteum* has a somewhat remarkable country name, namely, "brandy-bottle," partly because the seed vessel is somewhat flagon-shaped, but particularly because this plant exhales a peculiarly musty-oenanthic odour. Incidentally, both these blooms nestle in the water upon their broad leaves.

For a deeper appreciation of the oriental sister plants, the *Nelumbo*, one must turn to the graphic descriptions of Lafcadio Hearn, and other writers upon the floriculture of Japan, but briefly the "basu (or haus) no hana" (or the "flower of the lotus") standing by contrast high out of the water, lasts but a day before dropping its petals, each morning bringing fresh buds, and this changing glory of fresh flowers lasting well over six weeks.

It is the pink shades of the Lotus which attract the sightseers (in Japan) although these blooms are practically odourless. It is to the white variety that the almost overpowering perfume is due.

I am of the opinion that this fragrance can be closely matched by a lilac foundation (based as previously mentioned upon cyclamen) with the combined top-note fullness of violet and neroli, but there is one aspect of the perfume which I think worthy of supplementing by quoting Florence du Cane's impression, "I think the leaves and their stems . . . must have their own peculiar odour; for I have noticed near lotus beds, where no blossoms were to be seen, a strong and rather sickly perfume . . ." and this, I think, may be assumed to be something of a similiar oenanthic under-tone as mentioned in connection with the English yellow water-lily.

(I) PAEONY. Although of Chinese origin, the many and beautiful varieties of single and double blossoms have also in Japan their traditional gardens, and in addition to the familiar bushy plant, floricultural skill has produced the delicate flowers of the tree-paeony.

With regard to the scent associated with these lovely flowers, strangely enough this may vary from the unpleasant, fox-like smell of the old, dark crimson, double-blossom, cottage garden plant, to the delightful and ethereal fragrance of the single-white Chinese and Portuguese varieties, which seem to possess a pronounced violet odour, with a substratum of lily and Jasmin (any indoloid complement in the latter being unobtrusive.)

(E) CANDY TUFT. Of these common border-plants of the garden, the *Iberis umbellata* and *I. sempervirens* (the purple Persian and the Spanish tuft are usually devoid of odour, but the sweet-scented varieties, the flowers of which are a dazzling white, are natives of the mountains of Geneva and, although the first impression of the fragrance inclines somewhat toward the violet, there is an after-development, similar to the jasmin-rose undertones of honeysuckle and oleander; a remarkably simple but very effective tonal combination.

(C) CORYLOPSIS. The *C. spicata* is another plant of Japanese origin, the fragrance of the yellow blossoms showing the similar lilac-neroli undertone which is more prominent in the Lotus. This motif is also observed with the Cowslip, so that the composite note of this simple diad, if complemented with the indispensable jasmin, and given a slight balsamic undertone, results in a very close impression of the exotic perfume of the living blossoms.

The toothpaste companies defeat themselves by bringing out a new miracle ingredient every year—thus proving the ineffectiveness of last year's miracle.—*Sydney J. Harris.*

Recognize achievements in public. Reprimand errors in private. Develop better salesmen and better salesmen will develop your business.—*John Corrigan.*

A farm is a hunk of land on which if you get up early enough mornings and work late enough nights you'll make a fortune—if you strike oil.—*The Item.*

GO GOLDSCHMIDT STOP SEPARATION

Quality, uniformity and stability of Goldschmidt emulsifiers have been proven and accepted by leading manufacturers of cosmetics and pharmaceuticals for over a quarter century.

Send for literature and samples.

GOLDSCHMIDT CHEMICAL CORP.

153 WAVERLY PLACE
NEW YORK 14, N. Y.

SALES REPRESENTATIVES

CHICAGO

LOS ANGELES

ST. LOUIS

MONTREAL

TORONTO

How Givaudan's experience creates new and finer fragrances



New Givaudan odors created by synthesis are steadily broadening the scope of the perfumer's skills. Examples are the Givaudan musks, unsurpassed for quality and variety.



An industry guide that sets standards for aromatic materials is *The Givaudan Index*, representing years of intensive work by Givaudan analysts, chemists and perfumers.



First impressions at point of sale are important in selling a perfume or cosmetic, and Givaudan's creative skill provides odors with broad and distinctive consumer appeal.



Customers planning new products or lines can benefit from Givaudan's knowledge of consumer preferences, demonstrated in perfumes and cosmetics that enjoy continued success.



Special knowledge of the behavior of all perfume materials in every type of cosmetic enables Givaudan to provide authoritative technical counsel in product planning.



International in scope, Givaudan's modern service is based on world-wide experience and extensive knowledge of ideas and trends in perfumes and cosmetics of every type.

Unique and priceless knowledge
gained by years of pioneering in the
art of perfumery assures you
of the finest in the modern trend.



G I V A U D A N

Better perfume materials through constant research and creative ability

GIVAUDAN-DELAWANNA, INC.

330 West 42nd Street • New York 36, N.Y.

Branches: Philadelphia • Boston • Cincinnati • Detroit
Chicago • Seattle • Los Angeles • Toronto

Genuine Old French



Almond blossoms

SWEET ALMOND OIL, by its name alone is apt to induce nostalgic feelings. We might, as well, talk of "Virgin Sweet Almond Oil" (Huile d'Amande Douce Vierge), or "Natural Sweet Almond Oil" (Huile d'Amande Douce Naturelle). However, we cannot deny that the term of "Virgin Oil" is now being used in connection with qualities to which it does not apply; further, that since a certain number of years the pleasant name of "Sweet Almond Oil" has been used in commerce, to cover the oil of Bitter Almonds (and, even, Hazelnut Oil)—to such an extent that the trade of France is now offering "Sweet Almond Oil" in almost any case while the product so baptized—for all practical purposes—never answers this description. The genuine oil which we are going to talk of, is the oil extracted from the seeds of *Amygdalis communis*, of the *Dulcis* variety, through the first run of "cold expression" (i.e. at room temperature). Let us, first, deal with the production of Sweet Almond Oil; then, with its quality characteristics; and, finally, with its possible uses in cosmetics.

The Almonds are trees of the Rosaceae family which are principally growing in Mediterranean surroundings and climates. The main producers of Sweet Almond Oil are France (the Provence), Spain, Morocco, Algeria,

Sweet Almond Oil

MICHEL BERTIA*

Tunisia and Italy. From the viewpoint of genuine oil production we must never forget that only seeds of the year's last harvest must be utilized because the oil extracted from earlier harvests is, usually, rancid and always of an acid nature. Thus, the choice of the raw material is of high importance. Seeds suitable for the extraction of satisfactory oils can only be found where top quality is the paramount feature looked for, and inducing, any purchase.

Further, all speckled and damaged almonds—generally speaking, all seeds that are not in perfect and healthy condition—hold a highly acid, rancid oil. These spoiled almonds—in rates of lesser or higher importance—exist in every lot, depending on the general quality of the purchase; their acidity may amount to 25% in oleic acid. If these undesirable specimens were not eliminated the oil of all healthy seeds would, from the start on, become adulterated with rancid products. Thus, the removal and complete elimination of foul seeds is an indispensable factor in quality control.

This elimination of foul seeds is easy to achieve with sweet almonds. The seeds are peeled; i.e. the almond skin is removed by soaking in hot water. Defective seeds which could pass unnoticed inside their peels, are thus detected, and eliminated by simple sorting-out.

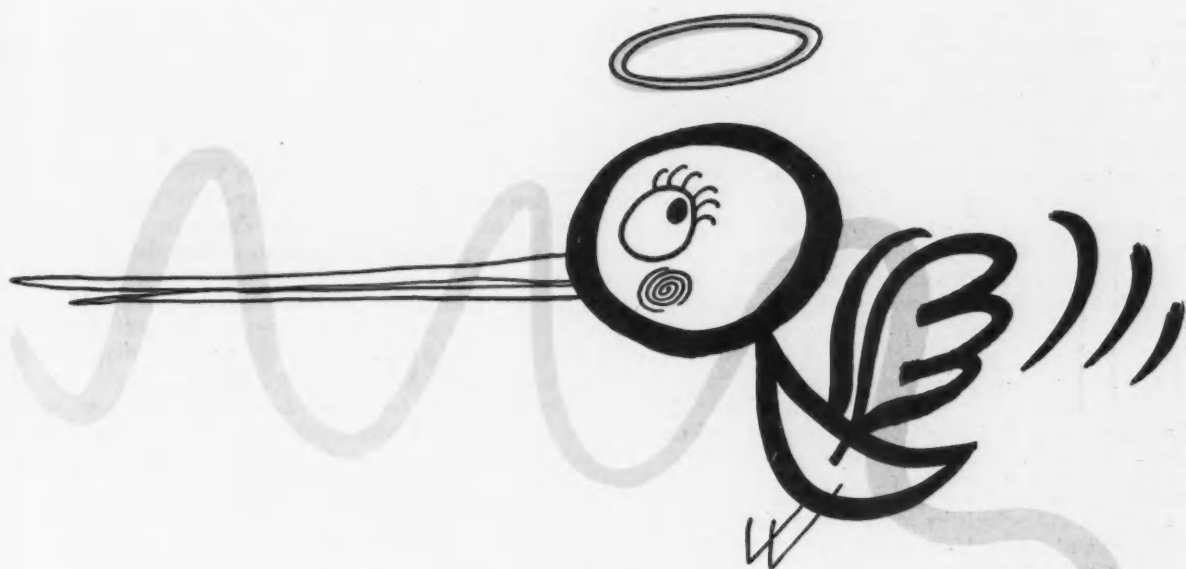
Recovery of Oil

The oil is recovered by cold expression, decantation and filtration, with no subsequent chemical or physical treatment required.

We are not going to linger on the constant characteristic of this oil which are in the neighbourhood of those of Bitter Almond Oil and Hazelnut Oil. However, it is noticeable that the solidification point is to be found between minus 10 and minus 20 Centigrade; and that, at minus 10°, the oil undergoes no change of appearance and still retains a high degree of fluidity.

This oil of healthy Sweet Almond seeds is extremely low in acidity, with a free acid content ranging between 0.1 and 0.35%. Further, because this product has not passed through any refining process (such as neutralization with soda or sodium carbonate, and steam deodorization) it includes all its natural preservatives and remains remarkably stable. In this instance, let us refer to the words of Mr. Sisley in his speech before the So-

* Originally published in *La Parfumerie Moderne*, Vol. 44, No. 30. Translated from the French by Margaret Neurath.



**You can take the word
of A HUMMINGBIRD**

NORDA makes good scents

Your nose shows the difference a Norda scent makes.

You can tell by smell the quality that Norda puts into an odor. It's fine, it's true, it's natural—there's honest character in it.

Norda, like Nature, can create the most subtle fragrance. Norda can give you a fragrance of heady simplicity. What makes a fragrance a favorite? Many times, it's a Norda scent.

Come to Norda for the smell that will sell your perfumed products. Use your letterhead for generous *free* samples.

Norda Essential Oil and Chemical Company, Inc.
601 West 26th Street, New York 1, N. Y.



Always remember—never forget
Norda Makes Good Scents

cieté Francaise de Cosmétologie in February, 1951: "Refined oils are lower in stability than are the raw oils. Hickmann has found that—where steam deodorization is employed—the vitamin E, the sterols and other active compounds are withdrawn and eliminated; yet, all of these are anti-oxygenes."

Even upon long storage, no rancidity of a hydrolytic or oxidative nature will occur in Sweet Almond Oil. Thus, the oil in a test vial that was only partially filled, rose from a starting acidity of 0.02% to one of 0.14% in the course of one year—which amounts to an acidification of an additional 2%;—a very slow progress, indeed, and indicative of excellent storage properties.

It should be of interest in this instance to note that the oil is higher in stability after extraction, than it would be in the seeds where—to its detriment—it participates in the biological process going on inside the almond. Seeds from which an oil of 0.12% acidity might be recovered today, will yield a more acid product of up to 1% free acid content after one year's storage; even so, where highly advantageous storage conditions have been achieved.

Among the components of the oil, its vitamin A and E are far from being negligible which may—at least, in part—account for its excellent stability.

Different Characteristics

All these characteristics are different in the case of Hazelnut and Bitter Almond seeds which, nevertheless, are now usually employed in the production of so-called "Sweet Almond Oil." While the selection of specimens and varieties is exacting and great care is employed in the cultivation and harvest of sweet almonds, the classification of their lots by quality standards for price-fixing results in rates that differ widely. The same principle in no way applies to the production and marketing of Bitter Almonds. These lots include many broken kernels holding an oil that has already become slightly oxidized at the spots of breakage.

As to Hazelnuts, the lots offered in France include the fruit pits discarded as a by-product in fruit canneries and distilleries. Because the warmer storage temperatures in these establishments are unfavorable to their keeping qualities, these nuts may reach the oil extracting plants in a condition greatly different from natural freshness.

On the other hand—because the soaking in hot water will hydrolyze their amygdaline content—Bitter Almond and Hazelnut seeds can not be peeled without the highly unpleasant liberation of cyanhydric acid. Therefore, cyanhydric acid is present in the oil recovered from these seeds; and this must be eliminated by a supplementary chemical reaction. In order to save this step, the extractors may by-pass the peeling in hot water, which implies the disadvantage that the adulterated seeds can not be discerned and eliminated.

It is easy to gather from the above that the oil recovered from Bitter Almonds and Hazelnuts is, in almost every instance, too acid for use in high-quality products and needs chemical refinement which—as outlined in the preceding paragraphs on Sweet Almond Oil—inevitably affects its stability.

Uses in Cosmetics

As to its uses in cosmetics, the genuine, unadulterated Sweet Almond Oil of the olden times had estab-

lished a reputation entirely of its own, on account of its ability to penetrate the skin. Being naturally low in acid content and high in keeping qualities, the controlled and improved Sweet Almond Oil induces predictions of an impending come-back, to a wide range of useful applications in the cosmetic industries, among which the following deserve mention:

In the compounding of oily emulsions designed for stability, modern chemists have been induced to employ mineral oils which, unfortunately, are not assimilated by the human skin. All endeavors of supplanting vegetable oils in their stead were based on oils of current production, i.e. oils extracted without special precautions. This is why the results were unsatisfactory. In a few cases where "Sweet Almond Oil" were tried out the results were, of necessity, deceiving; because—as indicated above—the product furnished was not what it should have been and did not deserve its name. The poor results produced with a poor quality oil have created an unfavorable impression of Sweet Almond Oil which, in its old-time quality and purity, should be worth taking a high interest in.

On the other hand, in the compounding of cold creams of good keeping qualities there exists a tendency to replace Sweet Almond Oil with cholesterine-treated vaseline oils. However, a cold cream made exclusively with Genuine Sweet Almond Oil without the addition of an anti-oxygene will keep during more than one year, without showing the slightest trace of deterioration after this period of time.

Because its stability and penetration characteristics have been safely established, the genuine Oil of Sweet Almonds should be particularly suitable for use in all kinds of "milks" and lotions.

In modern cosmetic preparations which include precious additions such as vitamins, hormones, oestrogens, etc., a supplement of Sweet Almond Oil is certainly indicated. Where the problem arises of finding a vehicle for fragile, yet expensive and intensely active components, it should be reasonable to select a good base, even though it commands a comparatively high price.

In beauty preparations in the form of oily solutions the use of Sweet Almond Oil is equally justified.

The last example to be mentioned here is the compounding of cosmetics which include Avocado oil. Sweet Almond Oil is particularly suitable in this instance as it is compatible with this precious oil, and will readily adjust and modify its viscosity.

It isn't easy at all under the present circumstances to buy genuine Sweet Almond Oil which safely answers its description. The industry that extracts related oils has not as yet affected the indispensable separation, in terms of definition and quality standards, of the oils recovered from Bitter Almonds and Hazelnuts on one side, and Sweet Almond Oil on the other. The only guarantee that exists is to purchase the kind of oil specified for the pharmaceutical trade, as indicated in the French Codex of 1949; in which a clear differentiation is presented, between the oil of Hazelnut Almonds (Huile d'Amande de Noyeaux) on one side—which is the group of Bitter Almond and various Hazelnut oils—and—on the other side—what the Codex defines as Sweet Almond Oil Codex 1949 (Huile d'Amande Douce 1949) which must be recovered, exclusively, from Sweet Almonds.

ARE
*Beautiful
Hands*

THE BASIS
OF YOUR
BUSINESS?

Then consider the bases
that are our business

ABSORPTION BASE #326 TO BE EXACT
Hand beauty begins with this proven base.
Smooth and stable and containing lanolin, its
uniformity is always dependable . . . it's economical, too.

Absorption Base #326 is versatile—fluid
enough to double as a body or beauty rub—its fine
smooth spreading quality makes it a superior powder base.

Are you formulating a new product? Our background, experience, our
pioneering of new trends have brought Morningstar international recognition as
the most progressive manufacturer of Absorption Bases for all cosmetic products.

Call on Morningstar for free technical assistance in the early stages of
your manufacture and eliminate costly mistakes. Morningstar Absorption Bases
can help you improve your present product as well. Call or write us about your problem.

MORNINGSTAR, NICOL, INC.

630 West 51st Street, New York 19, N. Y. • Phone: COLUMBUS 5-2860





The secret of successful hair products is their perfume

The success or failure of a hair product so often depends upon its perfume. A fact that is perhaps not fully realized by many manufacturers . . . "How lovely your hair smells" a woman loves to hear, but all too often a hair preparation is unattractive in odor—either too heavily perfumed or insufficiently so, so that the product's natural and not-too-pleasant odor comes through.

Several hair products whose advertising has given them substantial sales in the beginning, have dropped off in repeat sales due to errors in perfuming. The reaction of women to these have been: "It smells like a barber shop" . . . "It conflicts with my use of perfume" . . . "it is too heavy an odor" etc. etc. . . . On the other hand,

a certain hair conditioner, in formula not unlike a number of others, has managed to retain its high status mainly because of the psychological value of its pleasant, sylvan fragrance.

Each product represents an individual problem and requires a perfume especially compounded for it and tested in it. So the wise manufacturer works hand in hand with an experienced PERFUMER in the development of a product.

ROURE DUPONT invites your inquiries, fully confident that no perfuming problem is too great for us to counter. Contact us today with your perfume worries and be assured of our fullest cooperation and, of course, our strictest confidence.

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES

Roure-Dupont inc.

General Offices: 366 Madison Avenue, New York 17, N. Y.

Chicago Branch: 510 North Dearborn St.

Los Angeles Branch: 5517 Sunset Boulevard, Hollywood

Sole Agents in United States and Canada for:

ROURE-BERTRAND FILS et JUSTIN DUPONT Grasse (A.M.) France • Argenteuil (S.&O.) France

Boric Acid in Tales Can't Hurt Babies

TWO New York physicians report that dusting powders containing small amounts of boric acid can be used safely for babies. Infant deaths from boric acid solutions have been caused only by "ignorant" or accidental misuse of strong preparations.

Standard baby powders "carefully tested and manufactured by ethical firms" usually contain no more than five per cent boric acid. This amount cannot hurt a baby, even if dusted on irritated skin, the physicians said in the current (July) American Journal of Diseases of Children, published by the American Medical Association. In fact, boric acid counteracts the possibly irritating qualities of talc.

They said tests on 66 infants at the New York Foundling Hospital showed boric acid in five per cent concentrations is "practically unabsorbed through the intact skin of infants" even where there is a rash.

The "considerable attention" given in recent years to the "dangers and hazards" of misusing boric acid was "rightly inspired by the regrettable reports of accidental deaths, especially in small infants," Drs. Alfred J. Vignec and Rose Ellis said.

However, they said it is unfortunate that it has not been made clear that all deaths have been due to "accidental, ignorant and at times negligent handling" of solutions, ointments and powders containing high concentrations of boric acid. The greatest number of fatal cases have been from the accidental swallowing of boric acid by newborn infants.

To abandon use of baby powders because of these reports is "absurd," they said. If we eliminated everything containing boron or its compounds, we would have to stop eating lamb, fish, crabs, lobsters, chicken, and eggs.

The physicians said the practical lesson to be learned is that powdered boric acid should not be dispensed "over the counter" to the public, and boric acid solutions should not be permitted where "any possibility of human error" in their administration may exist.

"This does not mean that one should abandon the use of talcs which contain small amounts of boric acid in nonabsorbable form, since there is no evidence whatsoever . . . that such products are dangerous," they said.

Knowledge of Skin Tones

ONE out of every three women in the United States does not know her own skin tone and as a result may select cosmetics and apparel that do not flatter her according to a nation wide survey by Burlington Mills.

Cosmetic and color authorities have established that there are 6 basic skin tones—ivory, pink, medium, radiant, olive, and sepia, Burlington declares. Certain color shades of cosmetics and apparel are flattering to a particular one of these skin tones, while others are decidedly unbecoming, the authorities agree.

According to tests, the skin tone of 35% of the population is medium . . . while 17% have pink skin tone . . . with ivory, olive, and sepia following in that order.

The prevalence of the different skin tones varies by area of the country, the study reveals. Medium and

ivory tones are more prevalent in the South than in other sections . . . there are more pink tones in the North . . . and olive and radiant tones are found more frequently in the West than in other areas of the country.

Great industries are not built by getting the best of someone else but by giving goods and services that are worth more to your customers than the amount they pay you in return.—G. Heath Clark.

Cosmetic Excise Tax Collections

COSMETIC excise tax collections in 1952 and 1953, and through May, 1954 are given in the following table:

	1954	1953	1952
January	\$ 8,147,000	\$13,123,480	\$11,547,853
February	29,489,000	13,859,961	14,338,420
March	1,957,000	7,805,077	7,248,879
April	6,503,000	9,236,101	8,218,865
May	20,733,000	9,286,470	9,174,622
June	-1,662,000*	8,876,000	8,253,649
July		9,996,000	9,357,443
August		5,964,000	8,849,488
September		370,000	8,523,241
October		8,204,000	8,439,370
November		19,912,000	7,878,976
December		536,000	10,432,117

It may be noted that cosmetic tax collections beginning with September, 1953 appear to follow an irregular course. This is due to the change in the system for collecting these taxes on a quarterly instead of on a monthly basis.

*Negative amounts in monthly totals are due to revisions of amounts for earlier months.



"It's 'Eau de Venice' . . . bottled right out of the canals!"

THERE'S

Design

IN FRAGRANCE TOO!

In planning any new fragrance, be it for a fine perfume or as a cosmetic fragrance, it should be well planned as to style and price, taking into consideration the market, the name, the package, the promotion.

In this phase of perfume design, the staff of van Ameringen-Haebler, Inc. is skilled and experienced, as well as in the artistic and technical qualifications for which they are recognized.

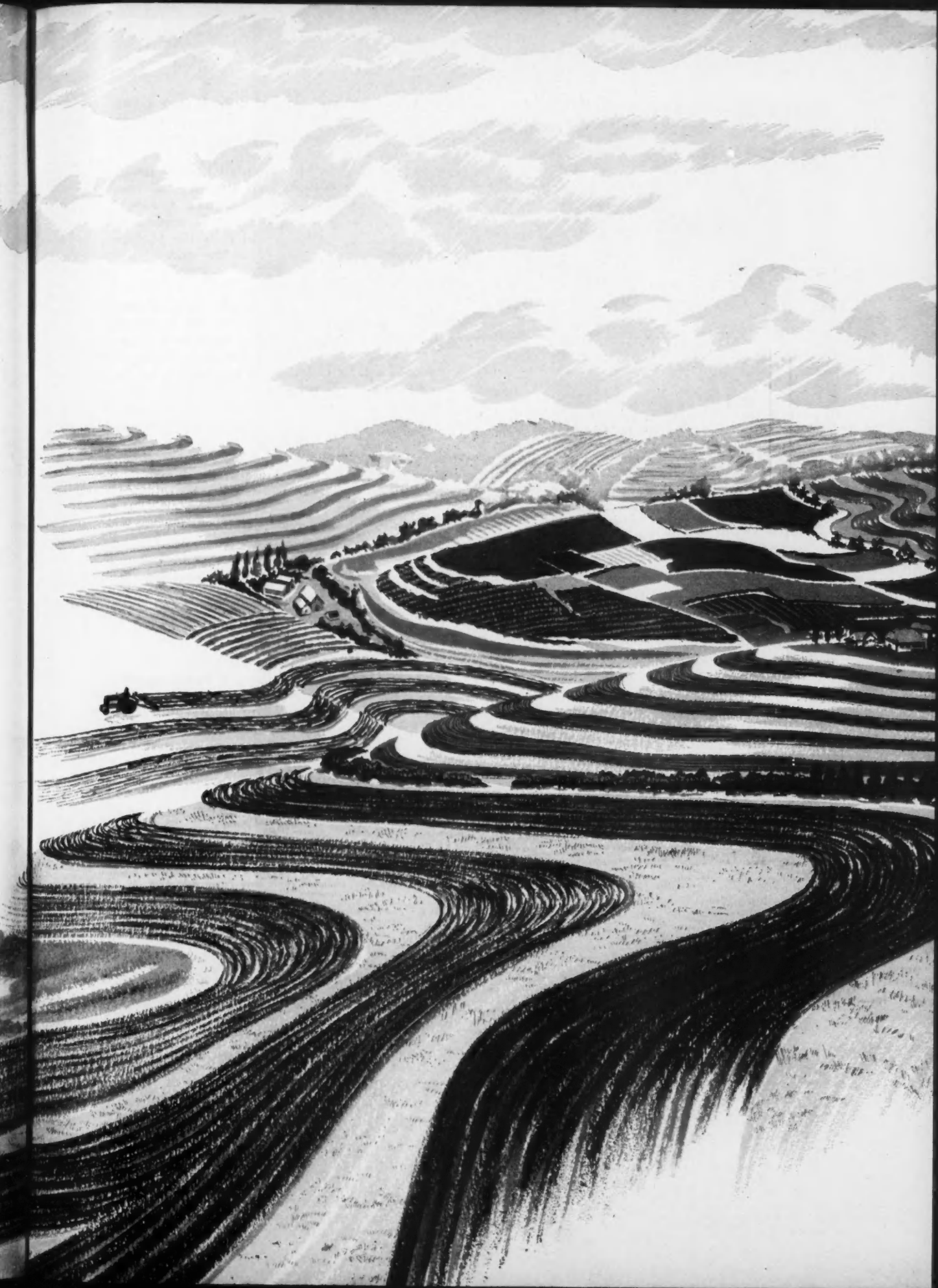
MANUFACTURERS AND CREATORS OF THE FINEST PERFUME MATERIALS

van

Ameringen • Haebler, Inc.

521 WEST 57th STREET NEW YORK 19, N. Y.







RESEDALIA

AN ACETAL

PHYSICAL APPEARANCE:	Colorless liquid; APHA 10 Max.
ODOR TYPE:	Floral; resembles Reseda Mignonette.
SOLUBILITY:	10 parts soluble in 100 parts 70% Ethyl Alcohol.
STABILITY:	Very stable in neutral and alkaline media.
REFRACTIVE INDEX:	1.4972 (R.I. $n_{\frac{20}{D}}$)
SPECIFIC GRAVITY:	$\frac{20}{20}$: 1.0020
SUGGESTED USES:	1% to 5% in formulation of floral odors for perfumes, creams, powders and soaps. As addition, 1/4% to 1%, to existing compounds to round off and improve odor character.
QUALITY:	Held to rigid specifications by our control laboratories; carefully analyzed by the most modern methods, including infra-red absorption.

Note these additional VERONA specialties:

BERGAMOT SYNTHETIC P-1104 • CYCLAMAL

VERONOL • FLOWER OIL WHITE LILAC

Sole representatives in the United States for: J. & E. SOZIO, GRASSE, FRANCE

RESINOIDES • NATURAL ABSOLUTES • ESSENTIAL OILS

PRODUCTS BUILD SALES FOR *Your* PRODUCTS

Aromatics Division

VERONA CHEMICAL COMPANY

Plant and Main Office: 26 Verona Avenue, Newark, N. J.

1210 Rosedale Avenue, Chicago, Ill.



Vertical construction of this counter-unit takes up little space, makes it convenient for the customer to help himself, clearly indicates the price, and shows what the bottle looks like inside the carton.

age must shoulder an even tougher selling job because it must overcome the handicap of antiquated store layout.

3—Mass retailers are tending more and more to true mass display of merchandise. The fundamental aim of interior display in true self-service and self-selection outlets is to create the effect of enormous stocks; big assortments. The larger the total amount of merchandise shown out in the open—the greater the competition between the rival brands that are out on display.

4—Mass retailers are also tending to group merchandise by merchandise category—instead of by brand. Clearly, this competitive grouping of merchandise puts on the package the great twin responsibility of capturing the eye of the shopper, as she skims over all of the competing brands on display—and of actually making the sale.

5—Advertising may pre-sell. But, with non-foods in particular, the pre-selling is far from a completed transaction. Actually, with non-foods in self-service and self-selection outlets, the final determination of brand is most apt to be made right on the retail floor.

6—A spreading variety of products is bought on impulse; or at least more impulsively. That makes the store floor the area of buying decision to a growing extent. The package must win that buying decision almost entirely by itself.

7—The larger retail outlets are cutting down the area of in-store promotion. Merchandise is being shown with military-like uniformity. Fewer posters, displays, etc., are being used. This, too, adds to the selling burden of the package.

8—The public is buying faster innumerable items over which it formerly dilly-dallied. The faster the public buys—the more vital it is that the package get in its selling licks quickly.

9—The new art of substitution—made possible, be

it noted, by self-service and self-selection—is the new technique of visual display. Salespeople formerly did the substituting. Now choice display position does that little trick.

10—Summing it up—the whole trend toward the self-service and self-selection retailing of non-foods really rests on two basics: 1—known brands. 2—the visual display of merchandise. It is advertising that makes the brand known—and it is the package that capitalizes visual display inside the store.

How to Plan the Package

There are innumerable classifications of non-food. Offering package suggestions for this assortment of merchandise involves too many variables to permit any degree of the specific. But within these obvious limitations, we offer the following suggestions for helping non-food to do a more effective selling job under conditions of self-service and self-selection retailing:

1—Put more selling information on your package. Make it good "retail sell."

2—All copy must be readable from a distance. It must be readable, not merely at eye level—but when displayed at toe level. And it must be readable from various positions.

3—If pictures will help tell the story faster, more effectively—and they probably will—use illustrations.

4—Don't "disguise" the product. Don't permit your package to resemble all competing packages; sensible distinctiveness is a huge plus.

5—Whatever you can legitimately do to create an impression of maximum quantity will always be decidedly worth-while.

6—If your item is one that the public wants to see—or touch—design your "package" so this is possible. And if you use a transparent wrapping of some type for this purpose, don't proceed to print all over it.

7—Remember—under self-service and self-selection your product may get more "handling" than where it reposes on an out-of-reach shelf. Plan it so as to lessen soiling, spoilage, etc.

8—Test the size of your sales unit.

9—Be sure the package includes all essential facts—weight, size, color, quantity, etc. There may be nobody

This self-service lipstick-type display received honorable mention in the 1953 carton competition of Folding Paper Box Assn. of America



around to answer questions—or nobody around capable of answering questions.

10—If the package is to be price-marked by the retailer—design the package so he can do it conveniently.

11—Should your item be of a type that would be stacked in a self-service or self-selection store—don't design the package in a way that makes stacking difficult.

12—Give it sales appeal; loads of sales appeal.

Summary

The non-food "package" in the coming self-service era will have the task of:

A—flagging the customer

B—giving the sales talk

C—closing the sale.

And to those makers of soft goods who have not pre-packaged—a warning. Don't put it off too long. Whether it is called self-service, self-selection or simplified selling—the merchandising situation at retail demands pre-packaging in more and more lines that never pre-packed.



This shipper displays a complete line of related products.

1954 Aerosol Package Competition

Entries in the 1954 aerosol package competition to be held as part of the third annual Aerosol Festival in conjunction with the 41st annual meeting of the Chemical Specialties Manufacturers Association in New York next December, will close October 15, according to Fred Lodes of Precision Valve Corp., chairman of the festival committee. Entries must be filled out on forms obtainable from the CSMA office, 110 East 42nd St., New York 17, N. Y., and returned to that office with a sample of the aerosol package being entered on or before Oct. 15.

The aerosol package competition is open to all comers and is not restricted to members of CSMA, Mr.



This display may look like a mad scramble, but it does have a bargain look. Prices are clearly marked, and the unit invites the shopper to help himself.

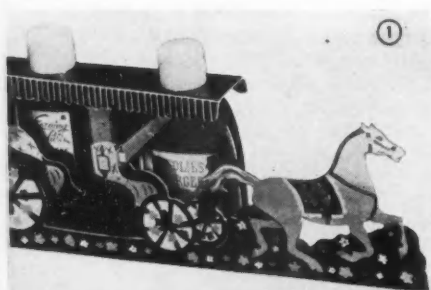
Lodes emphasized. There are no fees or other charges to those who enter their packages. The entry must be made by the brand owner and is restricted to one package in any single classification. In addition to the selection of a winning package in each of ten classes, a "best aerosol in the show" will also be selected.

Entries in the package competition will be classified as follows: (1) Insecticides, repellents and moth proofers; (2) Room deodorants; (3) Paints, enamels, other protective coatings and paint remover; (4) Other household products (polishes, rug shampoo, glass cleaner, etc.); (5) Shave products; (6) Hair preparations; (7) Other personal products, (shampoos, body deodorants, sun tan oils, drugs, etc.) (8) Snow, all types; (9) Industrial products (lubricants, stencil inks, belt dressings, etc.); (10) Glass and plastic aerosols, all products.

What Employees Want Most

THE average supervisor says that good wages, job security and promotion are the worker's basic desires. Employees, however, feel differently. This is how they rank their job goal: full appreciation of work done, feeling "in" on things, sympathetic help on personal problems, job security, good wages, interesting work, promotion and growth in company, personal loyalty to worker, good working conditions and tactful disciplining. These ten key factors were brought out in a survey conducted by the Labor Relations Institute in 24 industrial plants.—*NWDA Newsletter*.

Friendship is the art of overlooking shortcomings.—*Patuxent Tester*.



ONCE AGAIN the Christmas selling season is upon us. Once again cosmetics manufacturers are unveiling their gift specials. This year, however, they may be entering the race—but few are staking their all on themselves as the winner.

At a time when the economy is having its ups and downs, and few profess to know whither it is heading, most manufacturers have been content to take their stock items, wrap it gaily and decoratively, adding perchance a bit of spruce, and have let it go at that. Should the package fail to sell, all it needs is some rewrapping and it is ready to be placed back on the shelves for year-round selling.

Yet within these limits a lot of imagination has been shown. Miracles have been achieved with pipe-cleaner construction puppets, sleeves, die-cut cardboard boxes, acetate, polystyrene and other plastics, ribbons and bows.

The following are a few of the more ingenious examples of current Christmas packages; their reproductions follow a counter-clockwise order, starting top left.



X'mas

1. A colorful and gay horse-drawn carriage carton (die-cut) carries two Bourjois cologne bottles: Evening in Paris and Folies Bergere. \$1.00.

odorant in a plaid wool, plastic lined case, with spare storage space. \$2.50.

2. Decorated with actual early Roman coins, Tussy's Contraband Perfume is packaged in a gold basket weave box, lettered in black. Half-ounce, \$4.50.

6. Another imaginative box, Max Factor's Busy Man's Bar holds dispenser topped bottles of After-Shave Lotion, Cream Hair Dressing and Deodorant Cologne. \$2.75.

3. Prince Matchabelli's Cologne Carols are cleverly housed in a snow-covered cottage sleeve. Top of the inside box is a to-and-from gift card. Two one-ounce flasks, \$1.00.

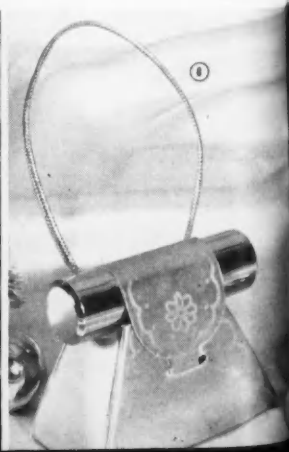
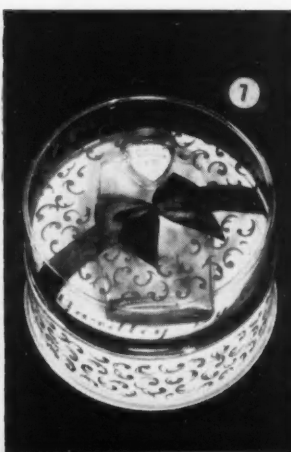
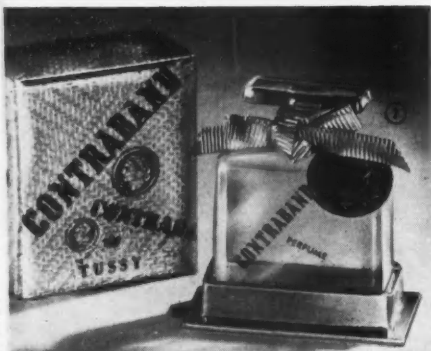
7. Yardley's Christmas Duet features cologne held to a puff-topped powder box with satin ribbon, with an acetate cover. \$2.65-\$2.85.

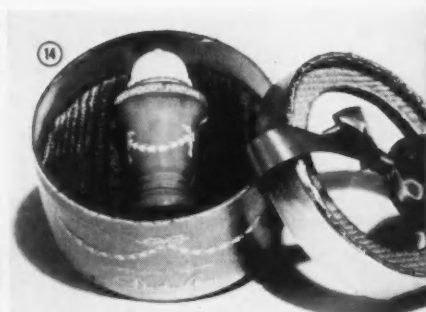
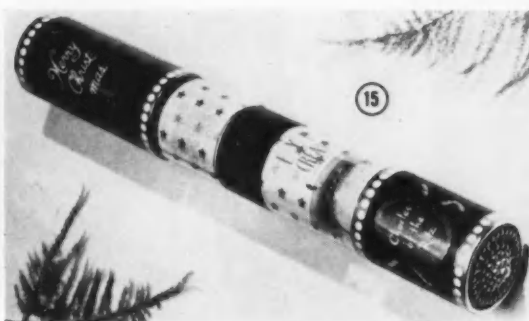
4. A jar of Sofskin Hand Cream is gift boxed in a carton that says Merry Christmas in English, French, German and Italian. 98 cents.

8. Max Factor's World of Beauty Hand Lotion Purse Dispenser rests atop a cleverly die-cut blue foil covered purse, which may be hung from the tree by its "handle." \$1.10.

5. A. D. McKelvy Co.'s Seaforth Trip-Kit holds plastic bottles of Shave Lotion, Men's Talc and Spray De-

9. Box adds a touch of Christmas to Lanolin Plus All Over Body Lotion. \$1.50.





Packaging & Promotions

10. A cherry tree sprinkled box holds three Pond's regulars: 31 cent Cold Cream, 31 cent Dry Skin Cream, and 25 cent Angel Skin. 89 cents.

11. Shulton is emphasizing its year-round Escapade line during the gift season. A free-form ¾ ounce bottle of perfume with sparkling cap stands on a permanent base, with decorative cover. \$15.00.

12. Alexandra de Markoff's Two's Company mates a four ounce plastic bottle of talcum and a two ounce bottle of toilet water, gift-wrapped in cerise and gold metallic paper and joined with a golden bell. \$5.00.

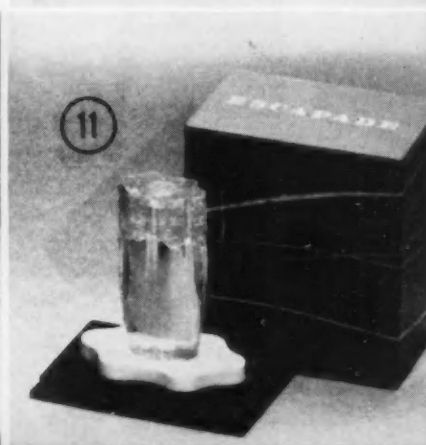
13. A strikingly different way to cap a bottle: polystyrene wolf-heads top Courtney After Shave Lotion and After Shave Cologne. \$1.50 each.

14. Dorothy Gray's Wedgwood Perfume comes in a vase-shaped bottle packaged in a blue and cerise foil carton. \$5.00.

15. Charles of the Ritz' Beauty Baton assembles one-ounce sizes of Dry Skin Cleanser, Skin Freshener, Velvet Texture Lotion and Eye Cream in a colorful, star-studded gift package. \$3.00.

16. Helena Rubinstein's coach-motif box holds several combinations, such as Eau de Parfum and Dusting Powder. \$3.75.

17. Lentheric's expandable Happiness Choo-Choo train transports four two-dram flacons of Tweed, Muguet, Red Lilac and Red Rose Bouquet. \$1.50.





Ilaron

A new quality of alpha iso methyl ionone.
Its splendid orris-violet odor will
impart vibration to your compositions.

POLAK & SCHWARZ

Unexcelled
quality



Ask for our pricelist for aromatic chemicals

Polak & Schwarz Inc., 667 Washington Street, New York-14 (N.Y.)



The Editorial - "WE"

Women Form Cosmetic Group

ANNOUNCEMENT that the feminine personnel devoting themselves to the cosmetic industry have organized themselves into the Cosmetic Career Women will come not only as welcome news, but will be greeted with the surprise characteristic of those who hear of an event that they had long assumed had taken place. Indeed, it seems incredible, in an industry uniquely concerned with the women's point of view, serving the distaff population in some instances exclusively, in others to a considerable extent, that women should only now be coming to the forefront. It is true that many companies were founded by women, and one cannot think in terms of cosmetic firms in America without thinking immediately of several women, if for no other reason than because the names of these people became the names of their companies. To mention but a few, Elizabeth Arden, Helena Rubinstein, Harriet Hubbard Ayer, and in more recent times, Hazel Bishop, among many others. Women who have made careers of the cosmetic industry have, of course, been active in the many organizations now in existence, and we have been pleased to find the loveliest of ladies on committees of the Toilet Goods Assn. and among the officers, directors, and speakers at the Society of Cosmetic Chemists. As we see it, however, the Cosmetic Career Women is and can be more than an industry-wide organization without competition from the male. The women in this field are par-

ticularly interested in and have excelled in problems of marketing, consumer research, field testing, product evaluation, name choosing, and the like—and for very understandable reasons. We are making products largely for women; the success of our production depends upon their acceptance and their evaluation. It is our opinion that, by focussing attention on precisely those aspects of cosmetic evaluation and marketing that can be given only minor attention in the larger organizations, the Cosmetic Career Women can become a most important factor in the American industry.

Mortality Rate High For British Firms

WE read in that excellent British journal, *Soap Perfumery and Cosmetics*, some interesting figures gleaned from the pages of the *Financial Times*, with relation to the British cosmetic industry. We learn that the total sales of the industry for a recent twelve-month period was slightly more than twenty-three million pounds, which becomes, when translated into the equivalent in American dollars, less than ten per cent of what the American industry sells. We are of course a country with a larger population; the entire scale of prices and wages in England is lower than in the U.S.A.; and the method of computing the figure may be far different in the two countries. Nevertheless, the conclusion can hardly be escaped that the American industry has tapped a far greater part of the potential consuming public than has the

British. Even more interesting is the information that there are some 300 firms engaged in the production of cosmetics and perfumes, and that a firm to be encompassed within this figure must be responsible for an output of only 200 pounds per quarter. Only a few short years back, in 1948, there were 1200 such companies, a mortality rate that, fortunately, does not have a comparable counterpart in America. We wonder whether, in other British industries, three out of four firms disappeared from the scene during this same period. The editor of *SPC* states that "most of the failures are such poor judges of feminine psychology, mass reactions and the structure of the wholesale and retail trades, that they consistently fail to appreciate the cardinal importance of packaging, display and—above all—press and magazine advertising." Was it only in the cosmetics industry that businessmen failed to understand the importance of packaging and merchandising, or was this true of British manufacturers, generally? We feel that an industry that has suffered a mortality rate as high as these figures indicate owes itself some serious self-analysis, and we furthermore feel that the many American houses that are today looking to our friends on the other side of the Atlantic, that are expanding or about to expand into that market, ought to understand better both its potential and its failures.

French Jasmin Eloquently Defended

EARLIER this year, there appeared an article (unfortunately anonymous) in that interesting (although not widely read in America) *International Perfumer*. According to the writer in that journal, Sicilian production of jasmin had reached the equal of French, both from the viewpoint of quantity and quality. Although the article may have been little read in this country, and certainly cannot be said to have had any considerable influence, inasmuch as the chief buyers and users of jasmin would verify such information before changing their policies, we feel that it is necessary to call to the attention of our readers a reply appearing in the June issue of *Parfums Cosmétiques Savons*, written by Paul Langlais, a distinguished scientist associated with the firm of Charabot. According to M. Langlais, the anonymous writer was not talking about Sicilian but Italian jasmin, of which the Calabrian constitutes about half, and the total Italian (Sicilian and Calabrian) is still considerably less than the material from Grasse. Contrary to the contention of the original article, M. Langlais notes that there are outstanding botanical differences between

the Sicilian and French products, that the superiority of the French is conceded by perfumers, and that this is illustrated by the fact that the material originating in Provence sells at about twice the price of that originating in Sicily. At which point we leave the dispute, until and unless we hear a rebuttal echoing from the other side of the Alps.

Tapping the Market Of Travelling Americans

VACATIONS and travel constitute a multi-billion dollar bonanza, says a report emanating from the Research Department of Capper Publications, following a survey that tells us how many people travel, by what means, for how many miles, for what period of time, and at what time of year. Unquestionably, the makers of suntan oil and sunburn remedies are aware of this market. Should it not be studied, so that it can be further exploited, by all those who make a product that can be packaged so that travelling and vacationing become more convenient and more pleasant?

A Career Woman Tells Her Story

ONE of many women who have made a success in the cosmetic industry, and one who has lent her name to a company and a line of products of which she can be proud, is Jacqueline Cochran. Because we know that she heads a successful company, that she is probably the most famous and certainly one of the most able aviatrixes in the world, and that she is wealthy not only in her own right but by virtue of her marriage to Floyd Odlum, we are apt to think of Miss Cochran as having been born with a silver spoon in her mouth. Nevertheless, the truth is that her story is one that reads like Horatio Alger, a story that might be entitled "From Rags to Riches." In a recent issue of *Life* magazine, Miss Cochran told of her early poverty, and of serving as an apprentice in the beauty parlor industry when she was under the legal age for the work, but was old enough to be paid \$1.50 per week. In an age when the organization of industry into larger and larger units will make it ever more difficult for the small business to get started and function, let alone climb to the top, the Jacqueline Cochran story is the type of inspiration that leaves the reader with the oft-repeated and very trite but nonetheless valid statement, "Truth is stranger than fiction." Undoubtedly, the forthcoming publication of the autobiography of Miss Cochran will only intensify this sentiment. The les-

son of the Jacqueline Cochran story would be lost, however, if we did not find therein the living proof that our industry is not and cannot be monopolized by a few large units, but has room for the new and the small, provided there are, to start, imaginative and intelligent leadership, good products, and sound financial organization. Miss Cochran's firm is but one of many that has entered the cosmetic scene, relatively late, only to establish a firm foothold. Because the older firms must face competition not only from each other, but from newer enterprises, they will be compelled to have progressive and forward-looking ideas, or they will fall by the wayside, as indeed a few have done. Because we see in Miss Cochran's story a remarkable example of the career woman in cosmetics, because she is both the Horatio Alger and Cinderella dream girl that still survives as part of the American scene, and because her company exemplifies what a new firm can successfully do in an industry like our own, we recommend her autobiography to all.

Industry Reports Given Through Operation Retort

A NEW SERVICE, and a valuable one, is being offered by the Drug, Chemical and Allied Trades Section of the New York Board of Trade, through its surveys on industry trade practices, known as Operation Retort. One study was recently made on holiday closings, and a second followed on employee benefits. While it is still the right of an individual firm to act as it sees fit on all matters that are encompassed by that vague but oft-used term, "company policy," an executive can only benefit by a knowledge of how the majority (and the minority) or other firms in the same industry are behaving.

Very Brief— And to the Point

THERE comes a notice from the Toilet Goods Assn., which we quote in full: "All state legislatures except Louisiana have adjourned. No legislation adverse to this industry was passed in any state." For which we can thank the alertness of the industry, to which the TGA has certainly made a sizable contribution.

Dealers' Viewpoint Aired to Manufacturers

AN organization that is acutely conscious of the needs, demands, and complaints of dealers is the National Barber and Beauty Manufacturers Assn., which has set up a dealers' liaison committee, and which will publish

a bulletin to be known as "The Dealers' Viewpoint." It is difficult to think of a subject more important to manufacturers, yet less frequently discussed.

Fragrance Users Seek Better Dispensers

WOULD an easy method of application, such as a perfected atomizer, encourage you to use perfume and/or cologne more often?" reads a question asked in the Good Housekeeping Consumer Panel 1954 Report, to which 30% of the women replied in the affirmative with regard to perfume, and 43% with regard to cologne. It is a coincidence that the replies to this query are published at a time when the aerosol may well constitute the long awaited answer to the perfected method of application. Certainly the time is ripe for a spray-on fragrance campaign.

Beauty Parlors Do Thriving Business

WE read in a recent survey (Good Housekeeping Consumer Panel 1954 Report) that beauty parlors continue to attract customers, despite the competition from the makers of home permanents. According to those queried in this study, 53% had had their last permanent in the beauty parlor, and 48% go to the beauty parlor for shampoo (with more than half of the latter never washing their own hair). Despite the seeming competition between beauty parlor and home-cosmetic manufacturer, we have felt for many years that the two groups could and would co-exist, and might actually aid each other, by increasing the interest in toilet preparations as a whole, and thus lead to more sales, regardless of outlet.

DCAT Issues Warning On Simplification

A BULLETIN from the Drug Chemical and Allied Trades Section of the New York Board of Trade points out that the so-called Customers Simplification Act of 1954, hurriedly introduced in June, makes a "fetish of simplification, for the sake of simplification as an end to itself," and seems "to run roughshod over the decades of work done by the proper authorities to safeguard domestic industries from unfair practices in import trade." The Synthetic Organic Chemical Manufacturers Assn., among other organizations, testified on the bill, and the testimony of that association is recommended for the study of all those interested.

SHEFFIELD

choice of CHAS. PFIZER & CO., INC.

In the treatment and control of many afflictions of the eye, one of the most complex and valuable structures of the body, physicians find Pfizer's Cortril Ophthalmic Ointment (brand of hydrocortisone acetate) highly effective. To guard the purity and efficacy of Cortril, Pfizer relies on Sheffield Tubes. Other widely used Pfizer products packaged in functional *Sheffield Process Tubes* include Terramycin® Ointment with Polymyxin B Sulfate, Terramycin Ophthalmic Ointment with Polymyxin B Sulfate, Cortril Topical Ointment,



TUBES

Polymyxin B Sulfate Ointments and Bacitracin Ointments.

At Sheffield, tube quality and uniformity are closely controlled by exacting specifications, inspection and research designed to better protect important ethical products. For value and service that exceeds your expectations, try Sheffield Tubes on your next order.

THE SHEFFIELD TUBE CORPORATION

Factory and Home Office: New London, Connecticut • Sales Offices: New York—Chicago—Los Angeles



Ambrene Rhodia

means

FRAGRANCE

Ambrene Rhodia Extra Concentrated will add zest to the amber note, whether singly or in conjunction with the natural product. The character of this highly refined isolate lends itself both to the delicate, subtle feminine bouquets and the newer masculine perfumes. In fragrances with aldehydic sharpness, it imparts a highly desirable smoothness.

Made by an exclusive Rhodia process to insure complete removal of any foreign material, Ambrene Rhodia Extra Concentrated is highly effective as a fixative, base, or ambergris replacement. Due to its long-lasting effect, it is exceptionally useful in bouquets for sachets and face powders, and is also used in perfumes for the finer toilet soaps.

For complete information on AMBRENE RHODIA EXTRA CONCENTRATED, or for help with your perfuming problems, write to Rhodia, Inc., 230 Park Ave., New York 17, N. Y.



Rhodia INC.

NEW

PACKAGING and PROMOTIONS



The Visa Travel Package

JOHN ROBERT POWERS PRODUCTS CO., INC. will distribute Robert Piguet Perfumes of Paris, France, in the U.S.A. Brigand, Visa and Baghari are the three perfumes to be featured. They will retail for \$22.50 and \$30 the ounce. A Visa travel package comes in three sizes: 2 oz., \$42.50; 1 oz., \$24; and ½ oz., \$16. Distribution will be limited to department and specialty stores.

LENTHERIC has found a lipstick to mate its Adam's Rib Perfume, and is giving it a fall promotion via six leading consumer magazines. Named Apple of Eden, it is described as a pure red. Tie-ins have been planned with Carolyn Schnurer dresses, and in the writing paper, hosiery, jewelry, hat and glove fields. The lipstick sells for \$1; in a special jeweled serpentine Eden Case for \$2.

COTY is releasing publicity suggesting specific shades from its "Sub-Deb" lipstick line to match the fall colors of different fashion designers.

HELENA RUBINSTEIN offers Wear-With-All Red lipstick at \$1.10.

SHULTON has announced an extensive large-space Fall and Christmas advertising drive for its men's and women's toiletries lines of Desert Flower, Friendship's Garden, Escapade and Old Spice, using national magazines, newspapers, Sunday magazine supplements, radio and television.

LEE LIMITED is introducing Sof-Set No-Lac, "the first hair spray without lacquer," president John A. Roosevelt announces. The 4 oz. pressurized aerosol can in red, white and olive green container retails for \$1.35. A heavy schedule of newspaper and television advertising is being followed.

PEAU D'OR SALES CORP. is distributing Lanotan Sun Tan Cream in an 8 oz. plastic squeeze bottle.

COET publicity assails powder puffs that almost walk, recommends a Coet a day to keep blackheads away. Forty double-sided, quilted puffs sell for 23 cents.

PRINCE MATCHABELLI offers a gift of a purple crown of perfume with the pur-



Stradivari counter display

chase of either the two or the four ounce bottle of Stradivari Cologne Perfume . . . and is backing the promotion with a counter display unit in a musical mood, even to a miniature gilt violin that plays. An easel-backed sheet of music carries the description of the offer; simulated music stands list the prices of the other Stradivari items, including a new \$2.50 size of dusting powder and a transparent-packaged bottle of new Stradivari Liquid Creme Sachet. The unit, standing 12" high, 15" long, 8" deep, is shipped with every Stradivari order totalling \$60 or more retail.

THE TONI DIV. of The Gillette Co. offers the 14-inch Toni Doll as a consumer premium for \$5 and the top flap of a Tonette home permanent wave kit. The doll, which sold for \$12 last Christmas, according to the company, has

nylon hair that can be brushed, combed, shampooed and permanent waved with the play-wave kit. The offer is being promoted via tuck-in cards for shelf displays, promotion folders and advertising on Toni radio and television network programs.

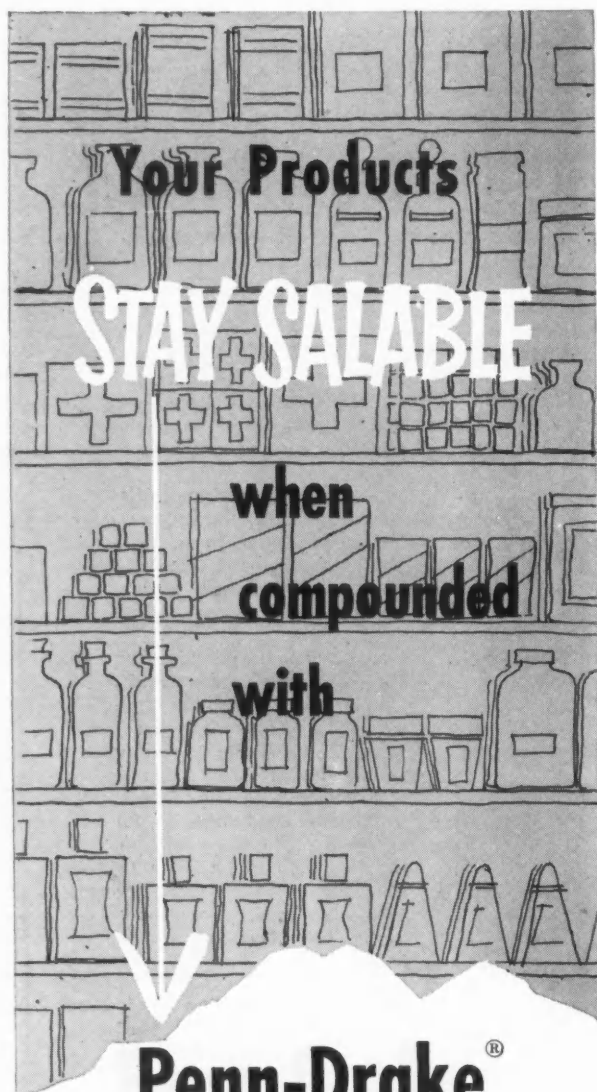
PRINCE MATCHABELLI's new Abano Bath Oil is said to keep the body smooth and free from dryness. In an 8 oz. frosted bottle, in peach-buff carton, both decorated with "crowned" aqua seahorse, it sells for \$3.

NORTHAM WARREN CORP. has announced the three prize winners of its Cutex Cut tomata contest. The grand prize winner, Miss Gerry Johnson of Nashville, Tenn., will be flown from Nashville to New York City for presentation of a 1954 Hillman Minx Convertible in the Cute Tomata shade, and for entertainment at the city's restaurants and theatres, then to be flown to Hollywood for a round of the film capital, following which she will be returned to her home-town, all via American Airlines. She will also be presented with a wardrobe of Cole of California separates with the Cute Tomata design. The second and third prize winners will each receive a set of matched luggage from Crown Luggage of Baltimore, Md., and a wardrobe of Cole of California sportswear in the Cute Tomata pattern.



Yardley Feather Pressed Powder display

YARDLEY introduces a new light-weight compact for its Feather Pressed Powder. Three inches in diameter, it comes in either gold, blue or rose; it retails for \$1.50.



Penn-Drake® PETROLATUMS

Since it may be a year or more before some of your products actually reach the consumer . . . it is essential that you keep them completely salable by minimizing every chance of deterioration. Pure Penn-Drake Petrolatums have . . . and retain . . . all the desirable properties you require.



**PENNSYLVANIA
REFINING COMPANY**
BUTLER, PENNSYLVANIA

Branches: Cleveland, Ohio and Edgewater, N. J.

KOMMON/ SCENTS!

Closeness of the major league baseball pennant races is attracting more attention than anything since "Flying Saucers." At the current writing, The Cleveland Indians and New York Giants are doing more to "break up" the Yankees and Dodgers than an efficiency expert with a sharp pencil.

Biggest individual hero of baseball seems to be the Giants' Willie Mays. If Mays is an example of Army pampering of athletes, all future spring training should be supervised by Selective Service.

Greatest heartache of the season, of course, was the "beating" of Joe Adcock after he belted four home runs in a single game. It made fans wonder whether a bat is an instrument of skill or just a weapon of self-defense.

With a Giant pennant win most likely, Leo Durocher will get this season's laurel as a genius. In view of the several other names called Durocher, this will earn him a lifetime average of .125.

Happiest regain of form, of course, was Bobby Feller's. Although he's not striking out as many as he did in former years, he has maintained the basic principle of good pitching: Make sure the other team scores less runs than your own.

Most revealing event of the season was Bill Terry's humble acceptance speech after being elected to Baseball's Hall of Fame. The last time newspaper men remember Terry being on the verge of tears was when he feared his salary would be cut.

The Cosmetic Industry agrees with those fans who think the game prospers more when the new year presents new champions. In other words, everybody should get a chance; provided, of course, it doesn't interrupt a busy season.

George Fiedler



KELTON

Cosmetic Company

230 West 17th Street, New York 11, N. Y.

Private Label Manufacturers Exclusively
Covered by Product Liability Insurance

Phrantolid

®

*

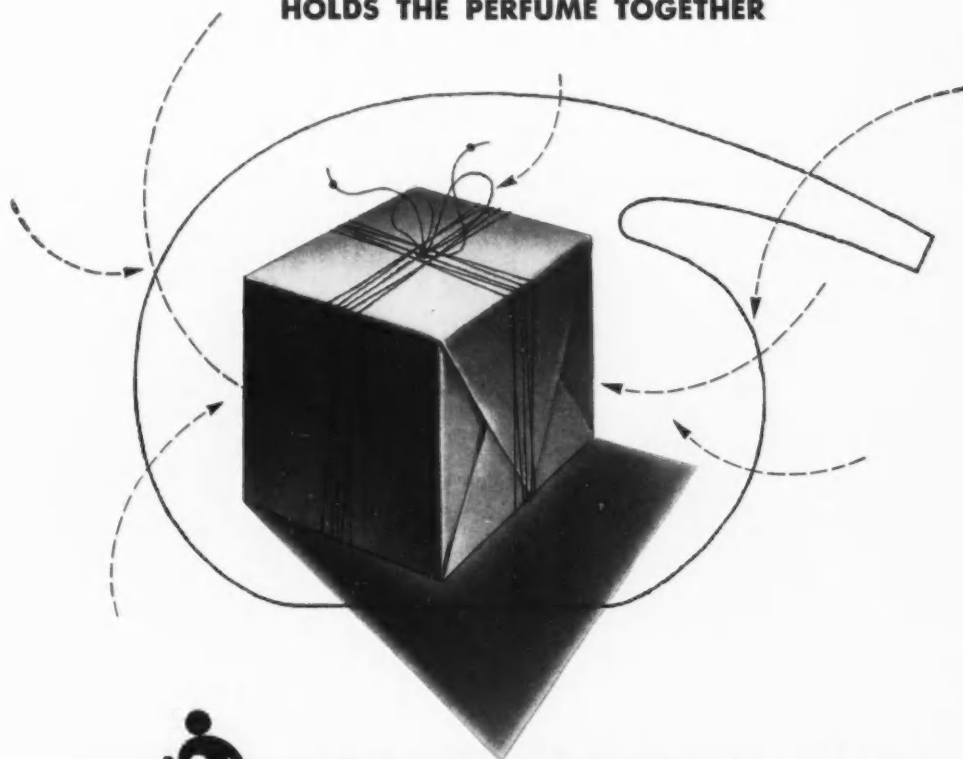
THE new aromatic chemical musk-tonkin type lasting, economical

Useful addition to present standard fixatives

Does not discolor perfumes, creams, soaps, and
other cosmetic preparations

Like a string around a package, it...

HOLDS THE PERFUME TOGETHER



Polak's Frutal Works, Inc., Middletown, New York

*Domestic and Foreign Patents applied for.

NATURAL AND AROMATIC MATERIALS

BASES AND SPECIALTIES FOR PERFUMES, COSMETICS AND SOAPS



exclusive representatives for
Tombarel Freres, Grasse

- absolute supreme flower essences
- surfine essential oils
- resinoids

LOOK TO US FOR THE **UNUSUAL**
IN PERFUME SPECIALTIES!

Tombarel

PRODUCTS CORPORATION
12 East 22nd Street
New York 10, N. Y.

IN CHICAGO: A. C. DRURY & CO., INC. • 219 EAST NORTH WATER STREET



Kidmetics Playhouse

KIDMETICS DIV. of Associated Brands, Inc. offers a Mail-Away Gift Package to be sent to children. Each package contains a Kidmetics Playhouse filled with 20 packages of bubble bath, bath powder, and a gift card. Retail price is \$2.00.

COTY is launching a new fragrance with a "Name the Fragrance" contest with over \$12,500 worth in prizes, including vacations in Paris. The new scent is making its debut via Toilet Water, teamed with one of seven Coty scents, in a special package called "Passport to Paris." The package contains two $\frac{3}{4}$ oz. flacons of Toilet Water, the unnamed scent and either L'Origan, L'Aimant, Emeraude, "Paris", Asuma, Muse or Styx. The two flacons are niched in their own gold-colored boxes, which can be removed from the package for individual giving. The combination sells for \$2.50; when the general line of the new fragrance is presented, the smallest size flacon will be $1\frac{1}{2}$ oz. at \$2.

JEAN NATE introduces a Travel-Kit consisting of a plastic snap-button case with a black lace look, holding a four-ounce refillable plastic bottle of Fric-



Jean Nate Travel-Kit

tion pour le Bain and a matched-in-scent soap in a separate protective sheath. Travel-Kit is \$1.75.

HOUBIGANT is promoting its Body Tone via television, the Maggi McNellis

show, in the New York metropolitan area.

TUSSY COSMETIQUES introduces Budding Beauty, a new line of children's toiletries for the 4 to 12 age group. Retail distribution is expected to be completed by October 20. The line will be presented in hand lotion, toilet water, bubble bath, toilet soap and "jumbo" bath soap, pomade lipstick with refill, at \$1 each, as well as $4\frac{1}{2}$ ozs. of dusting powder with puff at \$1.25; powder mitt



Budding Beauty Glamour Set

at \$1.25; and 3 ozs. of After Bath Powder at 75 cents. The pomade lipstick is pink-tinted though colorless. Budding Beauty Glamour Set consists of four ounce toilet water and atomizer, at \$1.75; Duo of hand lotion and after bath powder at \$1.75. Packaging is in white cartons, with pastel pink wavy lines, bearing the central motif of a little girl's head. The toilet soap is molded into a replica of the head. Bottles are of square-sided glass and have pale pink caps.

MARY CHESS, INC. has completely repackaged its Chessmen Toiletries for Men, and has added a new Chessmen product. The new product is Spray Deodorant, which acts as anti-perspirant as well. In a four-ounce ivory plastic squeeze bottle with a golden cap it sells for \$1. The new packaging consists of flat square glass bottles, except for the ivory squeeze bottles of Spray Deodorant and the After Shave Powder. The Chessmen trademark is fired in maroon on the bottles, harmonizing with the bronze-gold linen-weave boxes. Also new are six Chessmen sets, consisting of various combinations of Toilet Water, After Shave Lotion, After Shave Powder, a tube of Shaving Soap, Spray Deodorant, Bath Soap and bath mits, ranging in price from \$3 to \$12. Three scents are available: Pine, Sagebrush and Desert Verbena.

OGLIVIE SISTERS announces Lano-Set containing "Anti Humidity Factor-S", to keep hair manageable under all weather conditions. A 5 oz. aerosol retails at \$1.50.

HAZEL BISHOP offers a wood and glass counter merchandiser holding and dis-

playing all shades of Hazel Bishop Lipstick, Complexion Glow and Nail Polish free of charge to retailers with purchase of a \$48.20 assortment.

LUCIEN LELONG offers Indiscret, Tailspin, Sirocco and Orgueil Perfume Colognes in glass aerosols, each in a different color bottle. The 2 oz. bottles have a spherical base and a gilt cap over the press-button top. They are packaged in color-matched hexagon-shaped boxes. Price is \$2.95, except Orgueil, which sells for \$5.

MAX FACTOR will introduce its new floral bouquet fragrance line, named Electrique, on October 28 with four-color ads in November issues of national magazines, in time for the Christmas buying season. It will be promoted via fashion shows and fashion displays on the theme: "Light Up Your Life" and "New Fashion in an electric at-



Electrique Parfum Cologne

mosphere"; a counter unit reproduces a portion of the four-color ad. The line includes dusting powder at \$1.50; 4 ozs. of Parfum Cologne at \$2.50; Magic Wand, a tall shaker of dusting powder with a vial of matching Parfum Cologne, at \$1.50; a dusting powder and Parfum Cologne combination at \$4; a Parfum Cologne and atomizer combination at \$2.50; sets are \$2.25, \$3.75 and \$6.75. Packaging consists of blue taffeta-finish foiled boxes, decorated with a bolt of lightning in white, and the name Electrique in black.

HARRIET HUBBARD AYER's first half-price special on Formulayer will continue through October 30. The regular 2 oz., \$3.50 jar of Formulayer is being offered at half-price, the first special price ever of the product. In addition to cooperative newspaper advertising and display material, the half-price sale is being advertised in six leading national consumer publications.



is a **SYNTOMATIC SAMPLER**

EMALDENE

... a lasting fragrance
of real appeal at **\$16** per lb.
1.25 per oz.

EVERDENE

... a perfume oil blend
which is ever popular at **\$12** per lb.
1.00 per oz.

MAXINE

... a bouquet with maximum
floral character at **\$22** per lb.
1.50 per oz.

... check, test and prove
to yourself any or all of
the three SYNTOMATIC
SAMPLER suggestions herein
listed. Prove them for
quality, effectiveness and
for economical application...



*P.S. for that matter... should
you want a blend for a particular
purpose... you need but ask...*

SYNTOMATIC
CORPORATION

114 EAST 32nd ST., NEW YORK 16, N. Y.
• MUrray Hill 3-7618

Flavor Section



Cinnamates as Flavor Components

The esters of cinnamic acid have found relatively wide utilization as fruit and berry flavor essence ingredients

MORRIS B. JACOBS, Ph.D.

THE cinnamates can be considered, as has been done in this section with other categories of esters, as esters of aliphatic alcohols and of aromatic alcohols. They form a very interesting group of esters which have found utilization in both the flavor and perfume fields.

Aliphatic Cinnamates

Methyl cinnamate, $C_6H_5CH:CHCOOCH_3$, methyl cinnamate is a white crystalline solid melting at 35 to 37 deg. C. and boiling at about 260-262 deg. C. This ester has a balsamic, fruity odor, a sweetish taste, and a strawberry flavor. The commercial product has a minimum congealing point of 33.8 deg. C. Because of its strawberry character, this ester has been suggested for use in berry flavor compositions such as blackberry, currant, mulberry, raspberry, and strawberry. Methyl cinnamate has been recommended for cherry, peach, and plum flavors. This ester has perfume utilization as a fixative particularly in Oriental and spicy blends and for narcissus and carnation notes. Methyl cinnamate is soluble in 4 volumes of 80 per cent and in an equal volume of 95 per cent ethyl alcohol.

Ethyl cinnamate, $C_6H_5CH:CHCOOC_2H_5$, is a colorless liquid with a fruity-flowery character which is also bal-

samic. It has a sweet taste and an apricot-peach flavor. Ethyl cinnamate has a specific gravity of 1.049-1.054; it boils at 269-271 deg. C.; and it has a refractive index of 1.5598. A commercial product has a specific gravity in the range of 1.045-1.048 at 25/25 deg. C. and a refractive index of 1.559 to 1.561 at 20 deg. C. Its minimum congealing point is 7 deg. C. One volume of the ester is soluble in 3 to 5 volumes of 70 per cent alcohol.

Among the flavoring essences for which ethyl cinnamate has been recommended are raspberry and strawberry, cherry, peach, and plum. It has also been suggested for grape, nut, and pear compositions. In most of these compositions it should be used sparingly. Ethyl cinnamate like its homologue, methyl cinnamate, is also used as a fixative especially in colognes. It is a component of Oriental bouquets and floral type perfumes such as narcissus.

Propyl cinnamate, $C_6H_5CH:CHCOOC_3H_7$, is a liquid at usual room temperatures. It melts at 12 deg. C., boils at 283-284 deg. C., and has a specific gravity of 1.033. A commercial product boils at 102 to 104 deg. C. under reduced pressure of 1 mm. Hg and has a refractive index of 1.5530 at 14 deg. C. One volume of the ester is soluble in 20 volumes of 70 per cent ethyl alcohol.

Propyl cinnamate has been recommended for apricot and peach flavors and also for grape compositions.

Allyl cinnamate, $C_6H_5CH:CHCOOC_3H_5$, is a white to yellow crystalline solid boiling at 286 deg. C. with some decomposition. It has a specific gravity of 1.052 at 25/25 deg. C. A commercial product boils under reduced pressure at 105 to 108 deg. C. at 1 mm. Hg and has a refractive index of 1.5661 at 23 deg. C. Allyl cinnamate is very soluble in 95 per cent ethyl alcohol. This ester has been recommended for incorporation into apricot and peach flavors and, as would be expected because of the allyl constituent, in pineapple flavoring essences. It has found some application in floral perfumes of the type of apple blossom, peach blossom, and wisteria.

Isobutyl cinnamate, $C_6H_5CH:CHCOOC_4H_9$, labdanol, is a colorless liquid with a sweetish fruity odor also reminiscent of amber. This ester has a raspberry flavor and a sweet taste. It has a specific gravity of 1.011 to 1.015. A commercial product has a specific gravity of 1.001 to 1.004 at 25/25 deg. C. and has a refractive index of 1.539 to 1.541 at 20 deg. C. One volume of the ester is soluble in 2 volumes of 70 per cent alcohol. Isobutyl cinnamate has been recommended for fruit flavors such as cherry, peach, and plum and has also been suggested for berry flavors such as currant, raspberry, and strawberry. It is used in perfumery principally for Oriental bouquets but has relatively wide application as for instance in orchid formulations and in woody compositions. It is used for blending with coumarin, heliotropin, oakmoss, patchouli, and vanilla.

Amyl Cinnamate, $C_6H_5CH:CHCOOC_5H_{11}$, has a sweet taste, a flavor reminiscent of peach, and a pleasant cocoa-like odor. This ester has a specific grav-

ity of 0.999 to 1.01. One volume of amyl cinnamate is soluble in about 12 volumes of 80 per cent alcohol. It is not carried as a stock item by most firms dealing in aromatic or flavor chemicals for it has found only limited application as a flavoring and perfume material. This ester has been suggested for use in apricot, cocoa, and peach flavor essences.

Cyclohexyl cinnamate, $C_6H_5CH:CHCOOC_6H_{11}$, cyclohexanol cinnamate is another ester that can be included in this group. It is a liquid with a fragrant odor. A commercial product boils at 139 to 143 deg. C. under reduced pressure of 1 mm. Hg and has a refractive index of 1.5646 at 15 deg. C. Cyclohexyl cinnamate has been recommended for peach and cherry flavor formulations and has also been suggested for use in apricot and prune flavoring essences.

Aromatic Cinnamates

The aromatic alcohol esters of cinnamic acid are relatively more important than the aliphatic cinnamates as flavoring and perfume materials.

Benzyl cinnamate, $C_6H_5CH:CHCOOCH_2C_6H_5$, cinnamein, is a white crystalline solid with a weak, sweet balsamic odor. It has a honey-like flavor and a sweet taste. It melts at 39 deg. C. and boils in the range of 335 to 340

deg. C. Under reduced pressure this compound boils at 244 deg. C. (25 mm.) and at 195-200 deg. C. (5 mm.). A commercial product has a congealing point of 33.8 deg. C. Benzyl cinnamate is soluble in aqueous alcohol in the following ratios: 95 per cent, 1:1; 90 per cent, 1:7.5; and 70 per cent 3:200. Among the flavors for which it has been recommended are apricot, peach, plum, and prune. It has also been suggested for currant, gooseberry, honey, melon, and pineapple flavor essences. Benzyl cinnamate is very widely used in perfumery particularly as a fixative and in the formulation of Oriental and heavy aromatic compositions. It is recommended for honeysuckle and wisteria perfumes.

Phenethyl cinnamate, $C_6H_5CH:CHCOOCH_2CH_2C_6H_5$, Phenyl ethyl cinnamate is also a crystalline solid. It has a balsamic odor, a cherry flavor, and a bitter taste. Phenethyl cinnamate melts at 52 deg. C. This ester is not carried as a stock item by most firms dealing with aromatic or flavoring chemicals. It has been suggested as a component of bitter almond, cherry, and plum flavor essences but has found only limited application. Perfume literature carries little concerning this compound.

Hydrocinnamyl cinnamate, $C_6H_5CH:CHCOOCH_2CH_2CH_2C_6H_5$, phenyl

propyl cinnamate is a colorless to pale yellow liquid with a powerful, sweet, heavy balsamic odor. It has a sweet taste and a flavor reminiscent of cocoa. The specific gravity of the commercial product is 1.074 to 1.076 at 25/25 deg. C. and its refractive index is about 1.585 to 1.587 at 20 deg. C. Because of its cocoa-like flavor this ester has been suggested for use as a component in chocolate and cocoa type flavoring ester. It has been recommended for ingredient of perfumes having a heavy and balsamic note and as a fixative.

Cinnamyl cinnamate, $C_6H_5CH:CHCOOCH_2CH:CHC_6H_5$, styracin, gamma-phenylallyl cinnamate is a solid crystallizing in needles or prisms. It has a specific gravity of 1.085 at 16.5 deg. C. and melts at 44 deg. C. This ester has a powerful balsamic odor with a sweet character. A commercial product has a minimum melting point of 40 deg. C. Four parts of the ester are soluble in 100 parts of cold ethyl alcohol and 33 parts are soluble in 100 parts of hot alcohol. Little use has been made of cinnamyl cinnamate as a flavoring material. It has been recommended for use in Oriental perfumes and in heavy floral compositions but only sparingly.

Terpene Cinnamates

Virtually none of the terpene alcohol esters of cinnamic acid are carried as

Coumarine Rhodia

Sure... It is expensive!
But... We are proud of it
because it is so much better.
Yes, it has the best fragrance
and no by-odors. And who say so?
More and more discriminating
perfumers!

For complete information on Coumarine Rhodia, on Rhodia's line of fine synthetic oils, or help with any perfume problems, write or call Rhodia, Inc., Aromatic Chemicals Division, 230 Park Avenue, New York 17, N. Y., MU 9-7322.

Rhodia INC.
230 Park Avenue, New York 17, N. Y.



Essential oils now exported from Cyprus to world markets

CYPRUS is an island of warmth and flowers. Rose, Bay Laurel, Myrtle, Cistus, Thyme, thrive in the perfect weather. But the ideal climate and soil combine to create especially favourable conditions for growing citrus fruit. Before World War II the export of this fruit was the island's chief source of income.

A problem solved with imagination

When the war put an abrupt end to this export trade the firm of Lanitis Bros. tackled the problem with imagination and foresight. They saw an opportunity to revolutionize their industry by treating the fruit, on the spot, for its essential oils.



Extractor equipment—Here is a corner of the plant for extraction of flower oils by means of volatile solvents.

Their senior engineers visited the U.S. and gained a thorough understanding of the industry. They bought and shipped to Cyprus the finest modern American machinery to be obtained, including extractor plant and equipment for deterpenation, distillation and expression. The new industry was under way!

Modern production methods

The annual production of lemons in Cyprus is about 45 million fruits of which, now, one-third are treated locally for juices and essential oil. Lanitis Bros.' cold-pressed lemon oil, produced in their ultra-hygienic, modern plant, compares favourably with any in the world. Its citral content averaging 4%, constant laboratory supervision during production assures uniform quality and purity.

A variety of fine quality oils

Amongst Lanitis Bros.' many other important products are an exceptionally fine quality orange oil, and a lavender oil derived from English or Mitcham lavender. Their organum oil enjoys an especially good reputation in England, where it has been known for 20 years for its very high aldehyde content of 75 to 78 per cent. Lanitis Bros.' Otto and rose concrete, from the Rosa Damascena, their neroli and petitgrain bigarade, and, not strictly an oil, their



General view of the Limassol plant of Lanitis Bros. Ltd. This plant is equipped with all the latest American-built machinery and processes many million fruits and flowers every year.

labdanum from the cistus plant, are all extremely high class products.

Lanitis Bros. have created a vast new industry, which is still developing, and have built up an enviable reputation for producing the very finest essential oils.

For further
information and samples of

LANITIS
ESSENTIAL OILS

Please contact our
Sole Agents and Distributors
for the United States

The Calvert Mills Co.
44 Whitehall St., N. Y. 4

Lanitis Bros. Limited,
17 Roosevelt Avenue, Limassol, Cyprus

Can "Colloids Out of the Sea" Help Make Your Product Better?



Grandma knew the secret when she used Irish Moss in her homemade face creams and emulsions. Bretton fishermen knew the secret when their hands stayed baby-soft through the bitterest moss-gathering weather. Pharmacists from ancient times knew the secret when they used Irish Moss to put the "soothe" in their cough syrup and lotion preparations.

Now — through the magic of chemistry — the special colloidal, emollient and demulcent properties of Irish Moss have been given new commercial significance. Thanks to Seaplant Chemical's modern processing methods, Irish Moss Extractives are now available refined to the high standards of purity and selectivity-of-function today's manufacturers of drugs, cosmetics and pharmaceuticals require.

Selected Types Perform Wide Range of Functions



The long-known emollient and demulcent properties of Irish Moss are important plus values of SeaKem Stabilizers that offer intriguing merchandising advantages.* But it is for their performance of both common and special colloidal functions that these stabilizing agents are best known and most frequently used.



Dentifrices, lotions, pharmaceutical emulsions and a variety of similar products are made better and more sales appealing because SeaKem Stabilizers are used in their formulations to accomplish viscosity control, bodying, foam stabilization, suspension or emulsification.



Available in a wide selection of types, each one refined to definite standards of strength and uniformity, SeaKem Stabilizers are easy and efficient to use — powder in form, colorless to light buff in shade, highly odor-free, readily miscible, compatible with most other additives and modifiers.

How Can You Put SeaKem Stabilizers to Work?



Can the unique emollient and demulcent properties of "Colloids Out of the Sea" give your product new or added appeal? Are they the key to a more effective solution of your stabilizing problems? Send today for laboratory working samples. If possible, include in your letter some information about the problem — in complete confidence, of course — so that you may receive the type SeaKem Stabilizer best suited to your needs. Write today. SEAPLANT CHEMICAL CORPORATION, 63 DAVID STREET, NEW BEDFORD, MASSACHUSETTS.

* Recent radio-activity tests conducted by independent research laboratory demonstrate conclusively that SeaKem Stabilizers remain on skin after repeated scrubbing and rinsing.

Synthesized
Floral Absolutes

Superlative
Perfume
Essentials

Resinoids

Supreme
Perfume Oils

Savon Doux
Line

Soleauromes
(Solub-Oils)

Floraquae

RICO

Solidaromes



Dr. Alexander Katz Co.

division of

F. RITTER & CO.

Los Angeles 39, California

Branch Offices in Principal Cities

Taste-Perfumes
for Lipsticks

Essential
Aromatics

Fragra- scents

FINER PERFUME BASES

Modern • Exotic

Floral • Bouquet

Types

Manufactured by:

**NEUMANN, BUSLEE
& WOLFE, INC.**

5800 NORTHWEST HIGHWAY CHICAGO 31, ILL.

stock items by aromatic chemical and flavoring ingredient supply firms.

Terpinyl cinnamate, $C_{10}H_{17}CH:CHC_6H_4OOC_{10}H_{17}$, a liquid with a fragrant odor resembling storax and nutmeg has been mentioned in the literature. It has a cherry flavor and a bitter taste. Because of these flavor properties it has been suggested as a possible component of almond, cherry, and plum flavors. Terpinyl cinnamate also has found some utilization in perfumery as, for instance, in the formulation of new-mown hay perfume.

Flavored Notes

A PROPOSED system of nomenclature for the terpene hydrocarbons is detailed in *Chemical and Engineering News* 32, 1795-1797 (1954). The underlying principles of the recommended system of a committee of the American Chemical Society is detailed.

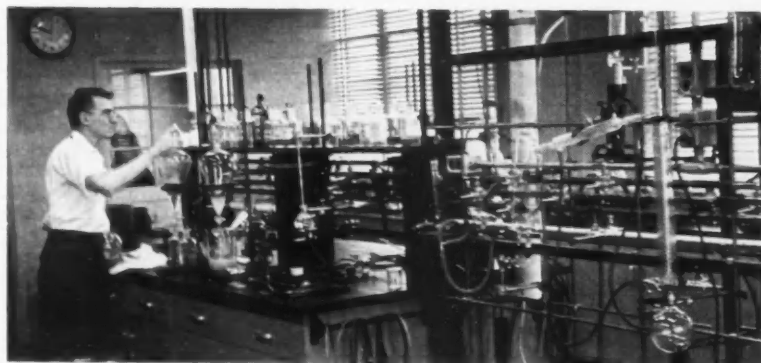
Di-*tert*-butyl-*p*-cresol has been found to meet the requirements of the Food and Drug Administration as a food additive. Its use as an antioxidant and preservative in animal fats has been made official. The Koppers Company, Pittsburgh, Pa. suggests this compound as an antioxidant for the prevention of rancidity in lard and shortenings.

"Mint Farming," *Farmers Bulletin* No. 1988 originally prepared by A. F. Sievers and E. C. Stevenson, has been revised by L. M. Pultz and was issued by the Department of Agriculture under the date of Feb., 1954. This publication should prove of value to all interested in peppermint and spearmint.

A session on the analysis of flavor in foods will be held at the Sept. 12-17 meeting of the American Chemical Society in New York City.—M.B.J.

Abstracts

Antioxidants. Studies with eight antioxidants by Sahasrabudhe (*J. Sci. Ind. Res.*, India, 12b, 63) indicates that butylated hydroxyanisole and propyl gallate are best for natural peanut oils and hydroquinone for hydrogenated oils. Sato et al. (*J. Oil Chem. Soc.*, Japan, 1, 157) find nordihydroguaiaretic an excellent antioxidant for hardened whale and cottonseed oils, and butyl-*p*-hydroxybenzoate best for coconut oil. Fat stabilization for bacon is provided by dipping the slices in lard containing 5.5-10% butylated hydroxyanisole, or by injecting 0.2% aqueous solutions into the slabs (Hanley—*Food Tech.*, 7, 429). Rancidity is inhibited in refined olive oil by adding



A chemist doing flavor research at one of the new laboratories at the Givaudan factory in Delawanna, N. J.

five percent of virgin oil or any of the above mentioned antioxidants (Alcala—*Grasas y aceites*, 7, 173). Among C-1 to C-17 alkyl esters of gallic acid the C-2 to C-4 esters are the best antioxidants (Oshiwa—*J. Agr. Chem. Soc.*, Japan, 25, 53). At 0.0001 molar concentrations alkyl esters of protocatechuic acid are as effective as the gallic acid esters, at higher concentrations the latter are superior (*Ibid.* 344). At pH 5.1 and in the presence of water the antioxidant effect of gallic acid, pyrogallol, and propyl gallate is less than that of lauryl gallate but pyrocatechol and nordihydroguaiaretic acid are considered most effective (Spetsig—*Svensk Kem. Tidskr.*, 65, 65). In tests on the effect of temperatures from -6 to 30° upon the lipoxidase-catalyzed oxidation of sodium linoleate the best inhibitive effect among several antioxidants was with nordihydroguaiaretic acid, followed closely by propyl gallate (Tappel et al.—*Arch. Biochem. Biophys.*, 42, 293). These are also demonstrated to be good antioxidants for general use, especially when in combination with synergists (Galindo—*Tesis quim. Univ. Chile*, 3, 23). Siegfried and Schneider (*Pharm. Acta. Helv.*, 28, 131) find that "Progallin P," nordihydroguaiaretic acid, and ascorbyl palmitate are only slightly effective for olive or almond oil but very effective for lard. The effectiveness of 43 chemical compounds and substances for shark-liver oil are recorded (Nair & Ramakrishnan—*Bull. central Res. Inst. Univ. Travancore Ser. A2*, 77, 86, 100). Phenolic type antioxidants are found most effective in providing stability in dry dog foods containing added fat (Neumer & Dugan, Jr.—*Food Tech.*, 7, 189). Natural antioxidant concentrates were extracted from spices (Chipault—*Ann. Rpt. Hormel Inst.*, 25, 1951-52), and from osage orange fruit (Clopton—*J. Am. Oil Chemists' Soc.*, 30, 156). The suitability of quercetin for inhibiting autoxidation of triolein and several alkyl esters of

unsaturated fatty acids was demonstrated (Heimann et al.—*Fette u. Seifen* 55, 394). A cheap source of this antioxidant is the bisulfite liquors from fir and pine bark (Kurth—*Ind. Eng. Chem.*, 45, 2096). Alpha-tocopherol inhibits the hematin-catalyzed oxidation of vitamin A (Tappel—*Arch. Biochem. & Biophys.*, 47, 223). Amino-4-hydroxyflavonol (Katsui—*Vitamins*, Japan, 6, 69) and nordihydroguaiaretic acid (Suzuki et al.—*Ibid.* 5, 337) are recommended for inhibiting losses of vitamin A in medicinal oils. *J. Am. Oil Chem. Soc.*, May, 1954, p. 190 (M. Piskur, *An. Ref. Fats & Oils. Through Chem. Abs.*

New Antiseptic for Soap. L. J. Vinson (Lever Brothers Co., Edgewater, N. J.). *Soap, Sanit. Chemicals* 30, No. 4, 44-7, 103 (1954). Tetramethylthiuram disulfide (TMTD) at a one per cent level contributes significant antiseptic and deodorant properties to soap. In vitro and actual usage data indicate that, in general, TMTD has greater practical value as a soap antiseptic than the bisphenolics currently in use. This conclusion is based on the findings that TMTD 1) exhibits activity against a wider spectrum of bacteria and fungi, 2) has a greater substantivity to skin, 3) compares favorably in mildness to pure soap, and 4) has no discoloring effect on soap. *J. Am. Oil Chemists Soc.* 31, June, 1954 p. 280. *Through Chem. Abs.*

Some Aspects of Modern Detergents. C. B. Stuffs (*Perfum. essent. Oil Record*, 1953, 44, 128-133). Aspects covered include: rising sales of soapless detergents; the characteristics of non-ionic, cationic, anionic, and pluronic detergents; the principles of detergents; use of "optical bleaches"; dermatological effects; and analytical procedures. G. Helms. *Through Brit. Chem. Abs.*

Analysis of Deodorants and Antiperspirants. Determination of Boric Acid. J. E. Clements (*J. Ass. Off. Agric. Chem.*, 1953, 36 3, 791-793).—Martin and Hayes' ion-exchange method (*Brit. Abstr. C*, 1952-293) issued. The average recovery of added boric acid was 99.5 per cent. *Analytical Abstracts*, May, 1954, Abstr. 1002.

Homomenthyl Salicylate as Filtering Substance for Sun Rays. Günther Lindemann. Seifen-Ole-Fette-Wachse 79, 575-6 (1953).—A 0.01% alc. soln. of homomenthyl salicylate (I) shows an absorption curve reducing the rays at 297 mμ (reddening effect on skin) to 5% and absorbing very little of 340 mμ (max. tanning effect). Formulations for sun-burn-preventive preps. with I are given. Through *Chem. Abs.*

Distillation Number and Cocoa Aroma. J. Kleinert (Lindt n. Sprungli A.-G., Kilchberg, Switz.). *Rev. intern. chocolat.* 8, 297-9 (1953).—The relation between the distn. no. (ml. of 0.1N Ba(OH)₂ soln. required to neutralize 1 l. of steam distillate from 100 g. of cocoa) and the roasting process was investigated. The procedure used was as follows: Add 500 ml. of hot distd. H₂O and 5 ml. of 95% H₂SO₄ to 100 g. of shelled and ground beans, keep the

mixt. 12 hrs. at 8-10°, and then steam distil until 1 l. of distillate is collected. Conc. the neutralized distillate to about 60 ml. and fractionally dist. according to Duclaux's procedures to obtain a qual. and quant. est. of the steam-volatile fatty acids present. The distn. no. was not suitable to evaluate the various roasting processes. The fractional-distn. data for the fatty acids in raw cocoa beans corresponded quite closely to those for AcOH, with traces of propionic and butyric acids. The quantity of AcOH tended to decrease with the increase in degree of roasting, starting with about 0.05% in the raw bean and dropping to 0.03% on strong roasting. Through *Chem. Abs.*

Recovering Esters and Other Volatile Components. Eric R. Beu. U. S. 2,666,707, Jan. 19, 1954. An excess amt. of noncondensable gas is supplied to a liquid food, fruit juice, or other substance to recover the volatile flavor and aroma components of the fruit and food. The flavor and aroma components are recovered with a gas that is inert at approx. 60 F. and below, such as N, while maintaining the liquid or juice and gas at a pressure slightly higher than the equil. vapor pressure at the f.p. of the liquid undergoing treatment. An app. for the con-

tinuous recovery of esters and other volatile components is described. Through *Chem. Abs.*

Pharmacological Study of Lanocerin. Emilio Trabucchi (Inst. pharm. et. therap., Milan). *Industrie parfum.* 8, 380-1 (1953); cf. Fayaud and S. Rivera, preceding abstr.—Lanocerin (I) (hydrogenated lanolin) is superior to ordinary lanolin as a base for medicated ointments. I is ivory-white, completely odorless and non-viscous. Its acidity was 0.3% and its iodine value 12-13, compared with detns. of 0.50% and 27-30 for ordinary lanolin; I is therefore less likely to interfere with other ingredients in pharmaceutical mixts. Because of its ability to emulsify with H₂O (it absorbs 1.25 times its wt.); it makes a good vehicle for both H₂O-sol. and fat-sol. medications; ordinary lanolin does not emulsify well with H₂O. The time required for the appearance of an erythema in human subjects after cutaneous application of methyl nicotine was appreciably shorter when this substance was carried in I than in ordinary lanolin. Cutaneous application of 1 g. of I per day for a week showed no effect on the skin of two rabbits. Through *Chem. Abs.*

**for UNIFORM PURITY
UNIFORM TEXTURE
UNIFORM WHITENESS**



**Specify
BEEHIVE BRAND
Beeswax**

Experimental data and practical manufacturing experience of nearly 100 years' specialization in beeswax and beeswax compounds are at your service without cost or obligation. Write about your beeswax problems to **WILL & BAUMER CANDLE CO., INC., Syracuse, N. Y. Est. 1855**

Spermaceti—Ceresine—Red Oil—Yellow Beeswax—Composition Waxes—Stearic Acid—Hydistear

Certified Cosmetic Colors

for

**Lipsticks • Face Powders
Rouges • Compacts
Lip Pomades • Nail Polishes**

also

**Purified Iron Oxides
Purified Titanium Dioxide
for Drugs and Cosmetics**

Let our modern scientific laboratories assist in your color problems.

Samples Cheerfully Submitted.

Ansbacher - Siegle

C O R P O R A T I O N

Manufacturers of Fine Colors

General Offices, Factory and Laboratories

ROSEBANK, STATEN ISLAND, NEW YORK, N.Y.

Boston, Chicago, Cleveland, Louisville, Los Angeles,
Philadelphia, San Francisco

Hints

for Improving Production



Step and handle combination

Utilizing Shelf Space

A safe and more convenient method of utilizing shelf space is afforded by a step and handle combination for steel and wood shelving offered by Narva Products Inc. It makes top shelving as accessible as lower shelves and prevents bending or breaking of lower shelves. It eliminates the use of ladders.

New Flooring Material

A new rubber based plastic flooring material for use in industrial plants is offered by Gamble Brothers Inc. It is said to be unaffected by chemicals, oil and grease and the plastic surface is said to have a high abrasion resistance. It is bonded to solid or laminated hardwoods and is manufactured in strip or block form.

New Photofluorometer

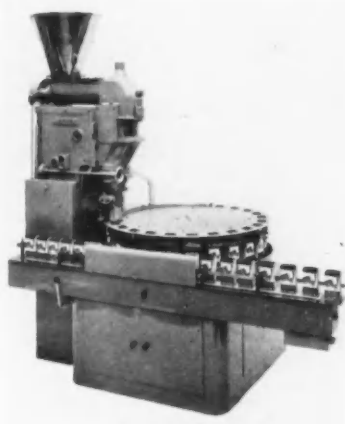
A new photofluorometer, model 12C, which is stated to offer increased sensitivity and improved stability so that it delivers accurate data both at very faint fluorescent levels and lower concentrations than those previously convenient to handle, is offered by Coleman In-

struments Inc. The extended range of use and availability of the instrument make it of interest to all who use fluorimetric analysis.

Stamped Wing Nuts

Stamped wing nuts are now being made by the Jacobson Mfg. Co. at substantial savings, according to that company. They are available in three styles: Regular, extra wide and flat in all machine screw sizes. They are made of steel, brass and aluminum.

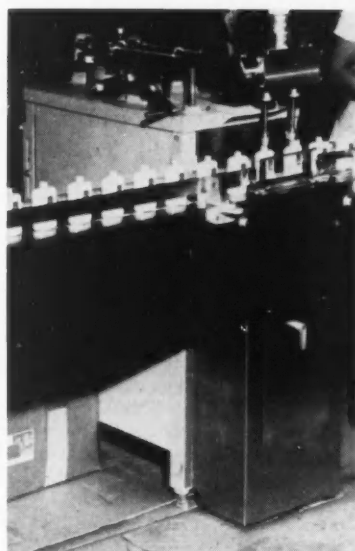
Dispersion problems in industry and chemical processes are discussed in a 38-page spiral bound book issued by the Kinetic Dispersion Corp. The subject is approached from practical and theoretical viewpoints and in addition to studies of the behavior of materials in solid, liquid and dispersional phases, the book contains comparison charts of results of various dispersion methods. It is illustrated. Copies may be had on request.



Powder filler

High Speed Powder Filler

A new, high speed hygroscopic powder product filler is announced by Geveke & Co. It features new hydraulic vibrating mechanism to settle hygroscopic and fatty materials in a minimum of working space; dustless operation and auger which does filling at 50-70 per minute.



Fills polyethylene bottles

Filler for Squeeze Bottles

An inexpensive filler for polyethylene plastic squeeze bottles is announced by F. L. Burt Co. It is stated that it will fill from 15 to 30 containers per minute with the manual model or 40 to 60 containers per minute with the fully automatic model. It is said to handle any liquid or semi-solid. The automatic filler also handles 2, 4 or 8 oz. glass jars as well as plastic bottles. Cone or U shaped hoppers to direct flow line connection of the intake is provided.

Liquid filling machines made by Packer Machinery Corp. are described and illustrated in a 16-page catalog which will be sent on request. Changes noted are the introduction of the push button controlled vacuum filler with automatic filling cycle and the foamless dripless filler with air valve control.

An evaluation check list to help users of shipping containers analyze the ABC of their packaging has been prepared for distribution by the Stone Container Co. Keys are given for learning how containers rate for appearance, best economy and construction. Copies may be had on request.

For fine grinding, granulating, wet milling or close particle size control Pulva sizers are offered by the Pulva Corp. These are fully described and illustrated together with Com-bin feeders in a new loose leaf catalog issued by the company.

Book Review

KINGZETT'S CHEMICAL ENCYCLOPEDIA. Ralph K. Strong, Editor and nine contributors. Eighth Edition, 1186 pages, size 5.75 x 8.75 inches. D. Van Nostrand Co., Inc. 1952. Price \$16.00.

Seven years elapsed since the publication of the 7th Edition, requiring many additions of new terms and newer scientific concepts of older phenomena. The original author's aim was to produce a work that would be useful as a reference by "all classes of the community." Hence the book must be large to achieve its purpose. The editor states that "Kingzett makes no pretense at being a substitute for a library" but it does give a lot of information and references for deeper reading.

All the newer fields, such as nuclear studies, physical chemistry, antibiotics, together with intensive coverage of chemical engineering, constitute over 700 changes in the new edition.

There are several U. S. editors on

the staff, yet in the description of "detergents" only British brand names are used, although a number of U. S. references are given. The only cosmetic described is a depilatory. There is a short, but good, description of perfumes but none for cosmetics or toilet articles. While many significant perfumery chemicals are listed, "Hydroxy" is not given. Under *Ultraviolet* rays, the word is correctly not hyphenated; also, its relation to suntan and the chemicals used to prevent sunburn, are not mentioned.

The listings are quite thorough although additional contributors from industries that cover present weak points, would be a useful addition.

Some trade names are used but the coverage should be thorough or not at all. As it is, coverage is poor, yet a good trade name listing would be a volume in itself.

It is a good reference for all around use. The price is right. The book is well printed and bound.

—M. G. deNavarre

Particle Size Relationship in Face Powder. H. W. Hibbott (*Proc. XIth Int. Congr. pure appl. Chem.*, 1947

[1953]. 5, 1249-1253).—A survey of control and improvement in face-powder production, dealing essentially with their separation into particle size divisions, their complete analysis, chemical and physical, and their size reduction. D. E. Blenford. Through *Brit. Chem. Abs.*

Dow's Polystyrene Plastic to Be Made in Britain

Formation of a new associated company to manufacture Styron, Dow's polystyrene plastic, for molders in the British Isles is announced by Dr. Leland I. Doan, president of The Dow Chemical Co. The company, incorporated as Distrene Ltd., is jointly owned by Dow and The Distillers Co. Ltd. of Edinburgh, Scotland.

Chicago S.C.C. Hears Dermatologist's Laboratory Methods

Laboratory methods for studying the chemical effects of topical agents upon the skin were discussed by Dr. Peter Flesch, Professor of Dermatology at the University of Pennsylvania, at the September 7 dinner-meeting of the Chicago Chapter of the Society of Cosmetic Chemists.



ESSENTIAL OILS AROMATIC CHEMICALS

Descollonges

PRODUCTS

LILAC FLEURS "B"

A remarkable duplication of the perfume of the fresh Lilac Blossom.
Powerful and lasting and reasonably priced.

BENJ. FRENCH, INC. 160 5th Ave., New York 10, N. Y. CHelsea 3-1937



New Products

and Developments



For fluorescent analysis

Black Light Inspection Unit

A new model black light inspection unit said to represent the latest advance in the use of ultra violet for fluorescent analysis is announced by Ultra Violet Products Inc. Interested companies may write specifying proposed applications so that pertinent data may be sent by the company.

Adipyl Chloride

Adipyl chloride is now available in research and pilot quantities from Spatz Chemicals Inc. It is probably the most reactive commercially available derivative of adipic acid. In addition to giving theoretical yields of the di-amides it is stated to be an excellent starting material for suberic acid and dibromoadipyl chloride.

Lanette Wax Made in U. S.

The self emulsifying wax known abroad as lanette wax is now being made in the United States by the Aceto Chemical Co., Flushing, N. Y. It is made and sold under the company's brand name of Ceramol. A booklet describing its properties and various cosmetic and pharmaceutical formulas is available on request.

Detergent in Liquid Form

A new liquid form of Nacconol synthetic detergent is now being pro-

duced by the National Aniline Div. of the Allied Chemical & Dye Corp. under the name of Nacconol SL. Samples may be had for the asking.

New Foilene Cartons

Foilene cartons afford an unusual opportunity to improve the appearance and sales appeal of products packed in them, according to the Robert Gair Co. Inc., 155 E. 44 St., New York, N. Y. For example the Procter & Gamble Co. is using them to package its Prell shampoo. The opalescent green of the sparkling foilene is similar to the color of the product. Silver foil shining through the transparent inks imparts a bright opalescent ap-



Scuff-protected carton

pearance. They are printed in five colors and overprinted in gloss to protect against scuffing in handling and shelf use.

Finishing Phenolic Plastics

A material for finishing phenolic plastics is announced by Logo Inc. It is available in pigmented and pigmented metallic forms. By its use, it is stated, new lines can be made of old products through the use of new effects obtainable with the material. Full details will be sent for the asking.

The positive seal, multi purpose, cylinder type disk filter made by the Ertel Engineering Corp. is described and illustrated in a leaflet which will be sent on request. A leaflet covering other filters made by the company is also available.

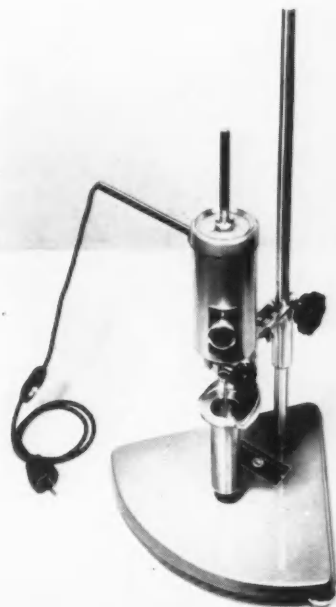
A new heavy duty processing vat bulletin issued by the Cherry-Burrell Corp. adequately describes and illustrates its line of multi purpose, heavy duty processing vats.

Bulk Shipments of Powdery Materials

A new way of handling bulk shipment of granular and powdery materials is provided by 500 gal. and 2500 gal. synthetic rubber and fabric containers developed by the United States Rubber Co. according to that company. The containers can be collapsed after emptying for return and re-use. Complete information will be sent on request.

Viscometer

To meet the need for rapid and accurate detection of alterations in chemical and physical properties of substances the Drage Viscometer has been designed. It is available in the United States through Drage Products. The applications of the viscometer are stated to be unlimited especially where the homogeneity of the final and intermediate products are required. Full information and demonstrations may be arranged on request.



Viscometer

Merchandising News

LADY ESTHER will back its Four-Purpose Face Cream with what it claims to be the largest annual face cream promotion in the cosmetic field. The fourth consecutive annual drive will tie-in with the cosmetic firm's 35th anniversary; it will run from September 15 to December 15, during which time the 500,000,000th jar is expected to be sold. The regular \$1.38 jar will be offered for 98 cents, and will be colorfully labeled as a special. Promotion will be via newspapers, Sunday supplements, television, counter, rack and window cards, streamers and cooperative advertising.

GOURIELLI introduces a man's line of "Tang Groomers." Tang Dandruff Control Shampoo contains as antiseptic ingredients P-chlorophenyl and A-glycerol ether. It comes in a 5¼ ounce, curved plastic squeeze bottle at \$1. Hair Groom, a white, creamy lotion with lanolin and vegetable oils sells in a 5¼ ounce squeeze bottle, also at \$1.50. After-Shave Lotion, in 4 and 8 ounce bow-backed bottles, retails at \$1.50 and \$2.50. Talc in 4 oz. plastic squeeze bottle sells for \$1.50. Tang Cologne, in 4 and 8 oz. sizes, sells for \$2.50 and \$4.

HOUBIGANT offers a Fragrance Fashions trio in its Liquid Skin Sachet, consisting of Chantilly, Quelques Fleurs and Premier Mai scents. The trio retails for \$1.

BARBASOL offers a gift set of aerosol shaving cream and "Young Man's Cologne."

THE TONI CO. is Christmas promoting Pamper, its new clear liquid shampoo, at 30 cents, 60 cents, and \$1; its new

Viv lipstick, in a choice of six shades, in gleaming golden metal case, at \$1.10; and its self-neutralizing Children's Prom home permanent at \$1.50.

NATIONAL HEALTHAIDS, INC. has developed a new wrapper and display container for its Sul-Ray Colloidal Sulphur Soap "for acne pimples, oily skin, and blackheads." The soap is also said to be useful as a sulphur shampoo and to remove dandruff and relieve itching scalp. It sells for 35 cents per cake. The new display container holds 12 bars.

LUCIEN LELONG presents a Perfume Album holding four smaller, plus one larger, flacons of four different scents. The "album" is bound in scarlet velvet-textured fabric, trimmed with gold, and opens as a book. The five flacons are set in oval cut-outs, to give the appearance of old-fashioned oval picture frames. They are individually boxed to serve as gifts.

JOHNSON & JOHNSON's Baby Lotion is now also being distributed in new mist-blue plastic bottles.

creased from 180 to 250-350 atm.; results were best if the starting material was free from foreign material, especially from sulfides. Phys. and chem. consts. were, for ordinary lanolin and hydrogenated lanolin resp., n_D^{20} 1.47, 1.572; optical rotation 10, 30; acid no. 0.51, 0.3; sapon. no. 91-98, 3.5; acetyl no. 18-20, 106.4; I no. 27-30, 12-13; unsaponifiables 49%, 95-96%; free fatty acids 0.2%, 0.15%; m.p. 42-44, 49-50°. Color reactions for steroid substances were not different after hydrogenation, but they were clearer. The hydrogenated lanolin was hydrophilic and not viscous; it penetrates the skin and can be stored without possibility of rancidity. Through *Chem. Abs.*

The Inhibition of Sweating with Eukliman. K. Brecht, W. Deininger, and Fr. Steinwachs (Univ. Tübingen, Ger.). *Die Medizinische* 1954, 224-6.—The relative amt. of sweating was detd. by recording the elec. resistance of the skin with the degree of sweating showing an inverse relation to the resistance. The administration of 3 lozenges of eukliman (I) (mixt. of belladonna, nitroglycerol, phenylethylbarbituric acid, menthol, and oleum salviae) increases the resistance in normal persons at rest from 20,000 to 200,000 ohms. The latter is the resistance found for dry skin. Oleum salviae in 5 times the quantity used in the administration of I will inhibit sweating but not to the extent that I will. I will also inhibit the increase in sweating produced by moderate work. Through *Chem. Abs.*

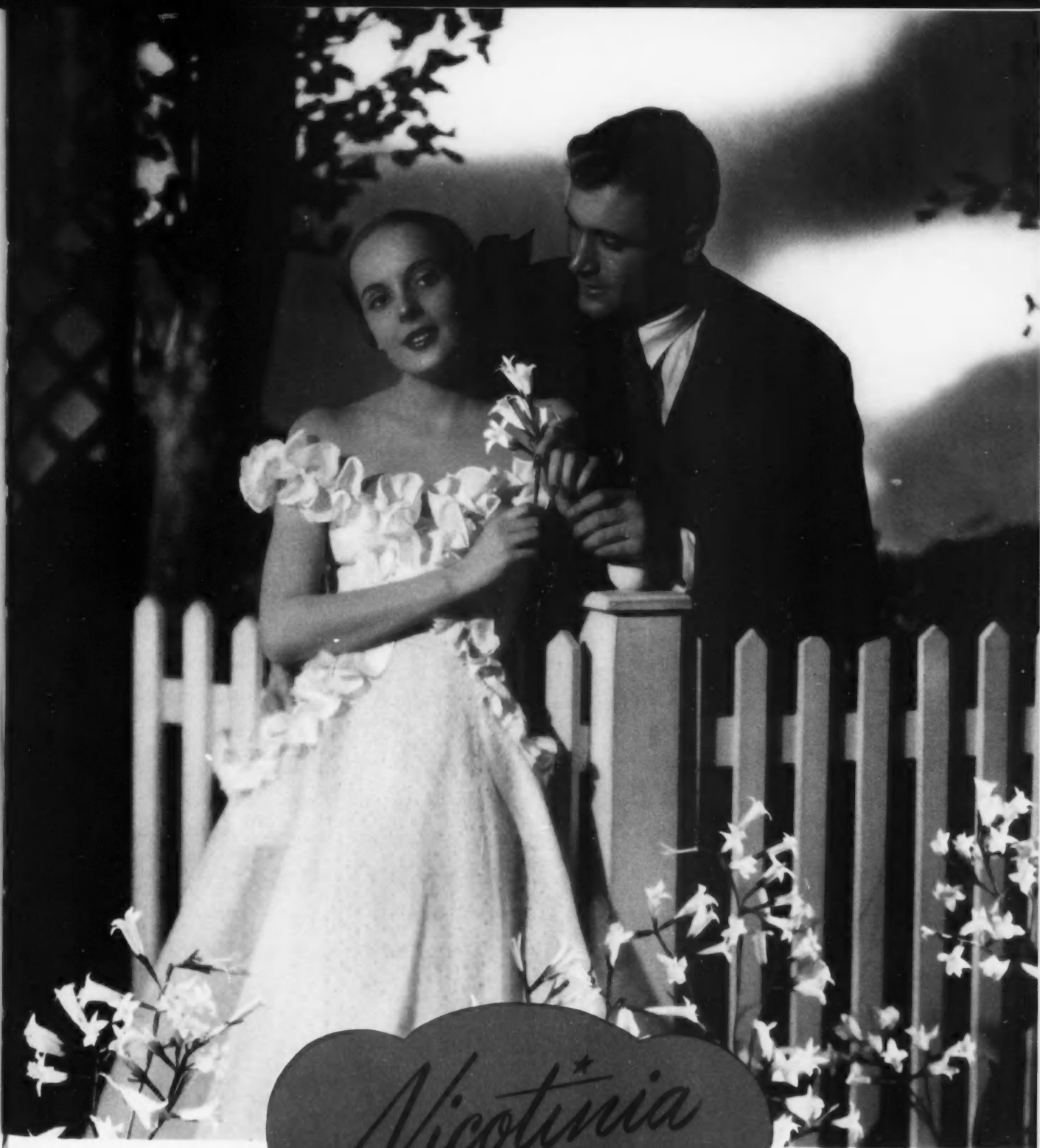
Abstracts

Hydrogenation of Lanolin. A. Fayaud and S. Rivera. *Industrie parfum.* 8, 379-80 (1953); cf. following abstr.—Catalytic hydrogenation under high pressure gave a white oily product, of pleasant appearance, and more suitable than ordinary lanolin for medicinal and cosmetic uses. The reaction was carried out at about 330° and was ended in 20-25 min.; H pressure in-

About Phytol. H. Janistyn. *Parfumerie und Kosmetik*, 35. Jahrg., Nr. 5/54.—An essay on the possibilities of use, in Perfumery and Cosmetic of the Phytol, one of the residual products of the chlorophyll, which is presently of too high a price, although a technical pure Phytol might be successful in many perfume compositions. Through *Chem. Abs.*

PLASTIC
ROUGE CASES— $\frac{1}{16}$ size only
48 Hr. Shipping—
Order in Any Size Quantities
\$13.95 per M
HANLIN CO.
2221 E. Gregory Blvd., K. C., Mo.





*Nicotinia
Verley*

. . . an appealing fragrance inspired by the "Sweet Tobacco" of the old-fashioned garden





ALBERT VERLEY & COMPANY'S

Nicotinia[★]Verley

glorifies the early-morning sweetness
of the Nicotinia Assimis fragrance

\$36 per lb.

ALBERT VERLEY & COMPANY
466-472 W. Superior St., Chicago 10, Ill.
114-116 E. 25th St., New York 10, N. Y.

MEFFORD CHEMICAL CO.
1026 Santa Fe Ave., Los Angeles 21, Calif.

ALBERT VERLEY & COMPANY
222 Front St., East, Toronto, Ontario

*Representatives in all principal cities
throughout the world.*

In the old-fashioned gardens of a bygone day, they planted "Sweet Tobacco" or "Shooting Star" — now technically known as "Nicotinia Assimis" — directly under bedroom windows, so that its fragrance might be wafted into the sleeping chambers during the early morning hours when it is sweetest.

Picture, if you will, a sweet, powerful blend of Jasmin, Tuberose, Carnations, and Roses — with just a bit of the pungency of the Narcisse. Nicotinia Verley is offered to you as a glorified replica of this fragrant American garden favorite. It can be used in all toilet goods.

For a new, appealing note, or inspiration to create an entirely new formula, we suggest Nicotinia Verley. Write for working samples.

Where Your Dollars Have More Scents

Albert Verley
& COMPANY

Headquarters for Odor Appeal



NEWS and EVENTS

President of Polaks Frutal Works Killed in Ireland Plane Crash

Frits J. Polak, president of Polaks Frutal Works, Middletown, N. Y. was among 25 killed when the Royal Dutch airliner crashed in the estuary of the river Shannon, Ireland, Sept. 5.

Mr. Polak was born and educated in Holland and began his career with Polaks Frutal Works in Amersfoort, Holland, the parent organization. He came to the United States in 1940, served in G-2 during the war and became an American citizen. He was 39 years old and is survived by his father, Jacob Polak, chairman of the board of the company, his mother, his brother Bernard Polak, vice president, a son Donald and a daughter Joyce. His son Donald on vacation in Europe planned to return with his father but as airplane reservations were not available he remained in Holland.

Mr. Polak was highly respected throughout the essential oil industry and the allied industries it serves for his fine character, his enterprise and his capacity for making and holding friends.

American, French Firms in Perfume Trade-Name Suit

Threatened prosecution for the trade name infringement by an American firm, Pacquin-Lester Co. of Litchfield, Conn., against a French perfume firm, The House of Paquin, has cost the latter \$100,000 in American orders, its U. S. distributor charges. The French firm is suing the American hand and facial cream firm for \$116,000 in the federal court in New Haven, Conn., and is seeking a declaratory judgment that it can go on selling its perfumes without an infringement on the American firm, asserting that the latter never manufactured perfume.

Three Named Vice-Presidents Warner-Hudnut International

Frank C. Cleary, Robert H. Gleckner and Paul R. van der Stricht have

been named vice-presidents of Warner-Hudnut International.

Warner-Hudnut International will handle all operations of Warner-Hudnut, Inc. outside the U.S., including its manufacturing laboratories in 16 countries and sales outlets in 122 countries. The company's 1953 sales volume abroad was over 28 million dollars.

In a move to prepare for further expansion overseas, Mr. Cleary was appointed vice-president for British Commonwealth and Asian operations, Mr. Gleckner vice-president for Latin American operations, and Mr. van der Stricht vice-president for European operations.

Free-for-All Seen in Lipstick Market

Entrance by the Toni Co., weaponed with a \$5,000,000 advertising campaign, into the lipstick market with its Viv is expected to be the firing shot for a free-for-all battle in the lipstick field.

Defending their share of the market will be such major contenders as the Revlon Products Corp., generally acknowledged leader in lipstick sales, and Hazel Bishop, Inc. which has been taking big steps with its indelible formula.

Toni, Revlon and Hazel Bishop are expected to spend about \$20,000,000 in cosmetics advertising within the next year, with a high proportion devoted to lipsticks. Revlon will spend about \$8,500,000 for advertising this year, with a major part scheduled for fall promotion of its new Lanolin lipstick; Hazel Bishop expects to back its lipstick with some \$7,000,000 in the next year.

Most surveys indicate that one-third of all lipsticks are bought in drugstores with department stores, house-to-house and variety stores next in the running. There is also reported to be a trend toward lipstick selling in food stores such as supermarkets, but as yet such sales do not appear to be more than 1 per cent.

Court Clarifies FDA Inspection Written Order Clause

Incriminating matter turned over to law enforcement officials, in the absence of threats, intimidation or force, may be used as evidence, the U. S. District Court for the Eastern District of Wisconsin has ruled in the case of the U. S. A. vs. Lyon Drug Co.

The case involved a defendant, who had readily turned over, without objection or protest, incriminating matter to accredited F.D.A. inspectors without the latter's written request. The defendant subsequently alleged, in their motion to suppress the evidence, that it had been obtained without a search warrant, and was seized in violation of their constitutional rights and in violation of an immunity clause in Section 703, "Records of Interstate Shipment."

However, the court ruled that it was not a violation of law to refuse to allow inspection of interstate records upon a simple request of an inspector, without a specific written notice, and that therefor the evidence was voluntarily turned over to this inspector and that the conditions for the applicability of immunity did not exist, and the statute did not apply.

Warner-Hudnut Buys Stock from G. A. Pfeiffer Estate

Warner-Hudnut has bought 18,158 shares of its 6 per cent preferred stock from the G. A. Pfeiffer estate.

33rd Lavender Fair Held at Digne, France

The 33rd Lavender Fair was held September 1-5 at Digne, (Basses-Alpes), France. The fair is unique in that it offers the possibility to purchase and select from a large number of batches which are exhibited by the producers of the area. It provides the opportunity to analyze all the batches under the control of the fair's management, thus insuring the warranty of purity and authenticity.

Looking for new retail outlets?

If so, you'll be keenly interested in an important new trend which is taking place in the laundry and drycleaning industries!

The response to two items will give you the idea:



1. The item illustrated was listed editorially in the May issue of *L & D AGE*. Already it has pulled over 133 requests from readers for more information. This water repellent is packaged in aerosol spray container for resale by drycleaners to their customers.

2. A self-service zipper display and repair kit was among top twelve, for information requests, of 62 items listed in April issue. The counter display contains 57 zippers in the fastest-selling colors and lengths—as well as sliders, top and bottom stops, and a tool for removing old slides.

If you have one or more retail items of special tie-in appeal for laundry and drycleaner customers, we suggest you investigate the laundry and drycleaning field—where counter display space is less competitive than is true of other-type retail outlets.

In *L & D AGE* you reach 35,000 laundries and drycleaners. Most of them represent excellent retail outlets for many items. Inquiries invited.

LAUNDRY and DRYCLEANING AGE

The "LIFE" of the Laundry and Drycleaning Industries!

48 West 38th Street, New York 18, N. Y.



Frank N. Carpenter, vice-president of Shulton, Inc., was host at a luncheon for beauty editors at the Tavern On The Green in Central Park where a special display was created for a preview of Shulton's Christmas Escapade fragrance line. Left to right are Frank N. Carpenter; Miss Willa Frederick, beauty editor, *Town & Country*; Miss Karlys Daly, beauty department, *Harper's Bazaar*; Mrs. Kathleen Spencer Cory, beauty editor, *Harper's Bazaar*.

Polak's Frutal Works Observes 40th Anniversary in Holland

Polak's Frutal Works, Inc. celebrated its 40th anniversary on August 21. Appropriate ceremonies were held in Amersfoort, Holland, where the company was founded by Jac. Polak and his brother, the late Henri Polak.

Jac. Polak, chairman of the board, attended the celebration and was presented with a commemorative plaque by the personnel of the company. Frits J. Polak, who recently succeeded his father as president of the American company, was also present.

The history of Polak's Frutal Works has been marked by steady progress and expansion. From its origin in a small building, the company has developed into a world-wide organization with its main seat now established in Middletown, New York, and associated companies in Holland, England, Belgium, France and Germany.

Lentheric Salesmen Visit Each Other's Territory

Lentheric is inaugurating a system of salesmen's exchange visits, such as between salesmen in the Eastern territory with those of the Western, the North with the South. The plan is aimed to bring about an interchange of ideas and selling techniques. First man to complete a test run was Arthur Lobl, of New York, who spent 10 days on the West Coast.

Talks about Newspaperman's Routine at ADACION Meeting

Justin L. Faherty, assistant to the publisher of the *St. Louis Globe-Democrat* spoke on "I Found No Peace" at the September 8 luncheon meeting of The Associated Drug and Chemical

Industries of Missouri, Inc. He discussed how a newspaperman covers such stories as the Bikini atom test and U.N. meetings.

Election of Three New Warner-Hudnut Directors Announced

Three new Warner-Hudnut directors have been elected: James S. Adams, general partner, Lazard Freres & Co.; Henry H. Hoyt, president, Carter Products, Inc.; and Nate S. Shapero, president, Cunningham Drug Stores, Inc., Elmer H. Bobst, chairman of the board, has announced.

Packaging Machinery Mfrs. Institute Meeting

The 22nd annual meeting of the Packaging Machinery Mfrs. Institute will be held at Grove Park Inn, Asheville, N.C., from September 11-14.

Boston BIMS Golf Meet Scores Record Turnout

The largest turnout of the year attended the Boston BIMS golf outing on August 19 at the Dedham Country and Polo Club. Many of those attending came from the New York area. They enjoyed golf, swimming and a roast beef dinner.

Golf prizes were won by Percy Pyne, Henry Dillon, John I. Vandewater, C. F. Karkalits, George Blake, C. P. Seaverns, and James P. Kelly.

Door-prizes were won by Irving Loxley, John O'Day, Jr., F. N. Langlois, V. J. Wilbourn, W. E. Kell, J. N. Conover, and Walter Sheehan. A special prize, a portable radio, was won by R. Allyn Gowdy.

The next outing is scheduled for September 15 at the Nashua Country Club, Nashua, New Hampshire.

Price of Jasmin Flowers Fixed at 485 frs. per Kilo in Grasse

The committee of the G. I. F. P. A. has set at 485 frs. per kilo the price of jasmin flowers at the field. Included in this price is the cost of harvesting.

The crop is valued at 700,000 kilos and the harvest is expected to be completed by October.

The committee directors have learned from the government prosecutor that the restrictions upon the importation of foreign grown jasmin have been enforced vigorously in the past year and will be pressed with increased vigor. Therefore the manufacture of the product will not be in the same category as the Italian product.

Grasse manufacturers made their needs known by August 15. Harvesting commenced July 25 and will be completed in October unless unforeseen difficulties occur.

Sees British Interested in Aerosol Products

Interest of the British in aerosol products, particularly aerosol cosmetics, is extremely high. H. R. Shepherd, vice-president in charge of research of Conn. Chemical Research Corp. of Bridgeport, Conn., reported after returning from almost a month's stay in England.

During his trip, Mr. Shepherd aided in the development of Midland Aerosols, Ltd., Connecticut Chemical affiliate which will be the first British firm to be associated with an American aerosol company. He addressed the British Society of Cosmetic Chemists in London and gave a report of the enormous advance of the American aerosol industry.

Colgate-Palmolive Ups Retailers' Coupon Fee

The Colgate-Palmolive Co. has increased from one to two cents the fee to be paid to retailers for each Colgate coupon they redeem for Colgate products. The change became effective as of Monday, August 16. The company is maintaining its present policy of reimbursing the grocer or chain store manager for postage or express charges incurred in mailing coupons to various Colgate branch accounting offices.

National Retail Industry Show Set for January 7-11

The National Retail Industry Show, claimed to be the first equipment exposition for the entire retail industry, will be held January 7 through 11, 1955, at New York City's Madison Square Garden.

Synthetic Detergent Sales Up, Soap Sales Down in First Half

Sales of soaps and synthetic detergents for the first six months of 1954, were 2% better in tonnage, and 7% better in dollar value, than in 1953. Eighty manufacturers, representing a substantial portion of the industry's volume, reporting in the quarterly census, taken by the Association of American Soap and Glycerine Producers, record sales of soaps and synthetic detergents totaling 1,748,769,000 pounds, valued at \$390,161,000, compared to 1,711,902,000 pounds sold for \$365,163,000, during the first six months of last year.

Synthetic detergents continue to increase their lead in sales, now holding 58.4% of the market. Reported sales of all synthetics for the first half of 1954 totaled 1,021,146,000 pounds, compared to 902,307,000 pounds for the same period a year ago, an increase of 13.2%. Dollarwise, synthetic detergent sales amounted to \$232,432,000, as against \$205,995,000 last year, up 12.8%.

Liquid synthetic detergent sales, although in relative small volume compared to non-liquid, have grown rapidly in the last two years. During the first half of 1954, liquid detergent sales totaled 55,448,000 pounds, com-

pared to 41,152,000 last year, an increase of 34.7%. In dollar value these sales amounted to \$26,259,000, an increase of 33.5% over the first half of 1953.

Sales of soap only, solid and liquid, for six months in 1954 totaled 727,623,000 pounds, off 10% from 1953. Dollarwise, soap sales amounted to \$157,729,000, compared to \$159,168,000 last year, a decline of 0.9%.

Ladies' Home Journal Article Shows What Make-Up Can Do

A dramatized article on what proper make-up and clothing will do for a woman appears in the September issue of *Ladies' Home Journal*. Written by Dawn Crowell Norman, beauty editor of the *Journal*, it is called "I Need to Bring Myself Out" and is number 4 in a series of beauty biographies.

Indian Symposium on Essential Oils, Aromatic Chemicals

The first symposium on research and development in Indian essential oils and aromatic chemicals will be held at the Forest Research Institute, Dehra Dun, September 27-30 under the joint auspices of the Forest Research Institute and the Council of Scientific and Industrial Research, New Delhi.

Study Indicates Kansas Ideal Toiletry Manufacturing Site

Kansas is a land of opportunity for manufacturers of perfumes, cosmetics and other toilet preparations, according to a six-month study just completed by the Midwest Research Institute for the Kansas Industrial Development Commission.

The Midwest study shows that Kansas consumers alone spent nearly 8 million dollars for toilet preparations during 1953. And, the study points out, production in the Kansas area totaled 2 million dollars last year.

The six-state area of Kansas, Missouri, Oklahoma, Iowa, Arkansas and Nebraska has a consumption of toilet preparations which exceeds production in the area by 15 million dollars annually, the report said.

Author Kurt Kulka's Name Misspelled in August Issue

Author Kurt Kulka's name was inadvertently misspelled in his article on "Detection of N.N-Dimethylaniline in Esterification-Reactions", which appeared on page 101 in the August issue of *The American Perfumer*. Through a typographical error his last name was spelled "Kukla".

Our Perfumes Samples Speak for Themselves . . .

Rather than give you lines of flowery phrases and exaggerations, let us send you working samples of Perry Brothers' fragrances to suit your special needs.

Perry Brothers have provided outstanding perfume bases to a host of customers and can do the same for you!

The imaginative skill of Perry's master perfume chemists plus over 25 years of "know-how" and experience create fragrances that assure consumer appeal.

Feature Fragrance: MELOSAN P.B.—A warm, Amber bouquet skillfully blended to compliment all alcoholic solutions, powders and sachets.

Manufacturers of: PERFUME BASES
ESSENTIAL OILS
AROMATIC PRODUCTS
FLAVOR BASES

Perry Bros., Inc.

220 FLUSHING AVENUE

BROOKLYN 5, N.Y.

ULSTER 5-2777

SALES REPRESENTATIVES

Chicago

St. Louis

Los Angeles

Brookfield, Conn.

Montreal



PERRY PERFUMES PERFECT YOUR PRODUCTS!



We will be happy to send you working samples of our perfume bases for products in the planning stage or to give added appeal to your products already on the market.



Chemical Societies to Participate in Chemical Exposition

Several chemical organizations will conduct technical programs at the 8th National Chemical Exposition October 12-15 at the Chicago Coliseum. Joint meetings will be held with The Chemical Market Research Assn., The Society of Chemical Industry, The Purchasing Agents' Assn. and The Manufacturing Chemists' Assn.; the latter will present a symposium on packaging, transportation and labeling.

M. G. Rutten Coffee Flavor Patent Dutch, Not German

The synthetic coffee flavor formula patent of M. G. Rutten mentioned in L. Benezet's article on "Synthetic Food Flavors" on page 360 in the May issue of *The American Perfumer* was erroneously listed as Deutsch 59834. Actually it is a Dutch patent, 59834, and as such registered in The Netherlands.

Mary Chess, Peggy Sage Sales Corp. Occupy New Quarters

Mary Chess, Inc. and Peggy Sage Sales Corp. have moved their executive sales offices from 654 Madison Ave. to 601 Fifth Ave., New York 17, N.Y.; telephone Murray Hill 8-5455.

German Chemical Equipment Show, Congress May 14-22

ACHEMA XI—Chemical Apparatus and Equipment Exhibition and Congress—will be held May 14-22, 1955 at Frankfurt am Main, Germany. A guide to the Congress has been published.

Bymart-Tintair in New New York City Quarters

Bymart-Tintair, Inc. has moved to new quarters at 15 West 44th St., New York City.

F.T.C. to Investigate Advertising Compliance

The F.T.C. has set up an investigating body of four attorneys to check compliance with orders, stipulations and trade practice rules in advertising.

Warner-Hudnut Net up 13%; Sales Reach New High

Warner-Hudnut, Inc. has reported net income for the first six months of 1954 rose 13% to \$1,556,300 from \$1,369,700 in the first half of 1953. Earnings per common share rose to \$1.06 from 91 cents, an increase of 16%.

Alfred E. Driscoll, president, said

that sales in the first half of 1954 rose to a new high of \$22,412,000.

Toiletries Well Represented in Denver Wholesale Market

Twenty exhibitors showed nearly 30 of the top national toiletries lines at the market for wholesale buying sponsored by The Denver Toilet Goods Assn. on August 8-12 at Denver's Cosmopolitan Hotel. Part of the first annual consolidated Denver Market, August 7-12, it was the outgrowth of the Denver Market Week Assn. and was sponsored by Denver Markets, Inc. of the Denver Chamber of Commerce.

A 96-page guide was issued to aid the visitors.

Glass Container Mfrs. Institute at New Location

The Glass Container Mfrs. Institute, Inc., has moved to new offices at 99 Park Ave. in New York, reports Victor L. Hall, its general manager.

Joseph A. Huisking, Fritzsche Vice-President, Retires

Joseph A. Huisking, vice-president and director of Fritzsche Brothers, Inc., has retired due to indisposition. He has also retired as treasurer and director of the affiliate company, Fritzsche Brothers of Canada, Ltd.

Kolmar Labs. to Operate Plant in Mexico

Kolmar Labs. has completed arrangements for a Mexican plant to serve the entire North American continent. The plant is scheduled to produce only lipsticks and related items, though manufacture of other cosmetics, such as make-up items, may start within the year.

Arrangements were made by W. J. Wick, executive vice-president of Kolmar Labs., who was accompanied by John B. Rick, head of Kolmar International.

House Committee Shelves Import Rule Change

The House Ways and Means Committee has shelved action on a bill to change import rules.

Atlas Powder, Th. Goldschmidt Form German Emulsifier Firm

A new German emulsifier company, Atlas-Goldschmidt, G.m.b.H., has been formed jointly by Atlas Powder Co. and Th. Goldschmidt, A.-G., of Essen, Germany.

Meeting to Discuss Rise of Foreign Chemical Industry

The dramatic resurgence of the foreign chemical industry will be discussed at a meeting of the Commercial Chemical Development Assn. on October 7 and 8 at the Bedford Springs Hotel, Bedford, Pa., according to an announcement by Frank Waldo, general chairman of the meeting.

National Beauty Trades Show Held in New York

The National Beauty Trades Show, sponsored by the N.H.C.A. and N.B. B.M.A., was held August 30 to September 1 at the Statler Hotel, New York City.

Among Our Friends

HARLAND J. WRIGHT, who has been associated as publisher with *The American Perfumer* for 19 years and prior to that was for many years with the old United Publishers, Inc., has retired. J. H. MOORE, Jr., president of the Moore Publishing Co., succeeds Mr. Wright as publisher.

ALBERT J. ELIAS has been named merchandising director and LAWR-



Lawrence E. Horner; Albert J. Elias

ENCE E. HORNER has been named advertising and sales promotion manager of the Alfred D. McKelvy Co., wholly-owned subsidiary of the Vick Chemical Co.

HENRY O. DOW has been named sales manager for Bourjois, Inc. in New York City.

CLINTON BOOTH has been appointed West Coast district sales manager of the Bradley Container Corp., manufacturer of polyethylene collapsible tubes and squeeze-to-use bottles.

CARL A. CLAUS has been appointed manager of eastern sales for R. A. Jones & Co., Inc.

DR. ALEXANDER E. KATZ, president of F. Ritter & Co., is in Europe re-establishing many friends and contacts, as well as becoming acquainted with new ones. He is accompanied by his 17-year old grandson DONALD. While abroad Dr. Katz will make a survey of the various raw material markets and new agencies will be established where the Ritter organization is not represented at the present time. Dr. Katz and Donald are expected to return to the U.S. in the early part of October.

FRITS J. POLAK, president of Polak's Frutal Works, Inc., Middletown, N. Y., well-known manufacturers of perfume and flavoring raw materials, left August 14 by air on a business trip to Europe. While abroad he conferred with the various affiliations of the firm located in Holland, England, France and Germany. Mr. Polak returned early this month. JAC POLAK, chairman of the board, who had been in Europe since the early part of June, has also returned.

DR. CHARLES F. FUCHS, director of research of The Emulsol Corp., attended the World Congress in Surface Active Agents in Paris, France, August 30. Later he visited various

chemical plants in Austria, Switzerland, France and England.

EVELYN M. KINDLER has been named sales manager of the Peggy



Evelyn M. Kindler

Sage Sales Corp. She was formerly with Tournour Beauty Products, Inc.

DR. LASZLO REINER has been appointed staff consultant to Food Research Laboratories in the fields of pharmacology, toxicology and medicinal chemistry.

GARY RICHARDSON has been appointed King's Men representative for New Mexico and El Paso, Tex.; CHUCK CANEPA will cover Colo-

rado, parts of Eastern Wyoming, Nebraska and North Dakota.

CARL PRATT has been appointed Lancome Sales representative in the Southwest territory, replacing DON BURNS.

MISS MARY BROWN has been appointed director of advertising and publicity at Jaquet, Inc., president RALPH P. LEWIS has announced. Prior to her new assignment, Miss Brown was director of publicity for the Harriet Hubbard Ayer Div. of Lever Brothers for six years and later, creative counsel for Lux products and Rinso.



Miss Mary Brown



★ to add
beauty +
elegance +
distinction +
 to their
 fragrance  packages
 world renowned perfumers
select labels by
foxon
 "america's finest foil printers"
 235 West Park Street, Providence 1, R. I.

WANT THE RIGHT TALC?

Call on Whittaker
"The Talc House"

THOMASSET CERTIFIED COSMETIC COLORS

U.S.P. STEARATES

WHITTAKER
CLARK &
DANIELS, INC.

260 West Broadway
 New York 13, N. Y.

SELECTED BOOKLIST

for Perfume, Cosmetic, Soap and Flavor Chemists

1. THE HANDBOOK OF SOLVENTS.

By Leopold Scheffan and Morris Jacobs. The most useful reference work on solvents available today. The properties, uses, action and technology of solvents are covered in this comprehensive handbook. Two major sections: 1. Covers theoretical aspects and practical attributes of solvents such as solvent action, solvent power, evaporation and evaporation rates and limits of inflammability. Discusses in detail solvent recovery, stresses safe practices; 2. The physical constants of over 2,700 liquid compounds are tabulated. Arrangement such that you can compare, at a glance, the so-called literature constants with the commercial constants of each solvent. 728 pp., 7 x 10, 17 illus. \$10.25 postpaid.

2. SOAPS AND DETERGENTS.

By E. G. Thomssen, Ph.D. and J. W. McCutcheon, M.A., D.C.I.C. A volume for the practical soap maker. Synthetic detergents thoroughly discussed. Tabulates 250 surface active agents, their classification, trade names, manufacturers and application in the soap industry. Covers continuous soap making processes, soap perfuming and coloring, equipment, processes and methods. Up-to-date, authoritative. 511 pp., 66 illus. \$9.25 postpaid.

3. THE FUNDAMENTALS OF DETERGENCY.

By William W. Niven, Jr., Research Chemist & Consultant, Midwest Research Institute. A thorough-going treatment of the theory and practical applications of detergency. Discusses: 1. The effects of composition, concentration, temperature and added electrolytes on the nature and properties of aqueous detergent solutions; 2. The fundamental actions which constitute detergency and the role of detergents in aiding these actions; 3. The means of utilizing the various fundamental detergent actions in laundering (a typical application). 260 pp., illustrated. \$6.75 postpaid.

4. MANUAL FOR THE ESSENCE INDUSTRY.

By Erich Walter. Comprises modern methods with formulas for making all kinds of essences for liquors and alcoholic drinks, fruit juices and jams, mineral waters, essences of fruits and other vegetable raw materials, essences for confectionery and pastry. Describes raw materials and laboratory practice. Discusses taste and the transfer of flavor to foods and beverages. A standard work for many years. Contains 427 pages, 37 illustrations. \$8.25 postpaid.

5. PERFUMERY SYNTHETICS AND ISOLATES.

By Paul Z. Bedoukian, Ph.D. This carefully compiled volume supplies a genuinely felt want for authoritative data on perfumery synthetics. The work contains the history, chemistry, physical and chemical properties, manufacture, uses, and other pertinent data of the principal perfumery compounds; and covers the important perfumery synthetics. A complete index adds to the value of this useful book. 488 pages, \$8.75 postpaid.

6. FORMULARY OF PERFUMERY.

By R. M. Gattefosse. Translated from the French. Contains typical examples of tested formulations and methods of preparation of perfumes and cosmetics. Part I covers synthetic perfumes and 100% compositions. A table of floral families is included with numerous empirical formulas. Part II covers alcoholic perfumes, toilet waters, extracts and various types of perfumes concluding with a formulary of cosmetology with adequate discussion of and formulas for beauty creams, various cosmetic specialties, rouges, lotions, dentifrices, hair products and nail preparations. 252 pages, 6x9 in., cloth covers. \$4.25 postpaid.

7. PERFUMES, COSMETICS AND SOAPS.

By William A. Poucher. *Volume II—Production, Manufacture and Application of Perfumes of All Types.* Covers in full the methods of production of perfumes, their chemistry, odor analysis, selection for various purposes, and compounding from various materials. Complete monographs explain all the floral perfumes, giving the botanical varieties, the odor classification, the chemical composition, practical suggestions for compounding, and the best ingredients. Additional chapters give many new formulas for fancy perfumes and toilet waters. 426 pp. \$10.25 postpaid.

8. MODERN COSMETICOLOGY.

By Ralph G. Harry. Partial contents: Emulsions, Cleansing Creams, Milks and Lotions, Acid Creams, Face Packs and Masks, Mud Creams, Vanishing Creams, Powder Creams, Lubricating Creams, Astringents and Skin Tonics. Lipstick, Make-up. Face Powders. Sunburn and Suntan Preparations. Deodorants. Depilatories. Antioxidants. Bath Preparations. Bath Oils and Emulsions. Foam Baths, Hand Creams and Lotions, Dental Preparations. Mouthwashes. Shaving Preparations. Hair Tonics and Lotions. Hair Creams and Fixatives. Permanent Waving Solutions. Hair Setting Lotions and Hair Lacquers. Hair Shampoos and Soapless Detergents. Manicure Preparations. Eye Lotions. Baby Preparations. Foot Preparations. Insect-Bite Preparations. Humectants. Acne Preparations. Coloring of Cosmetic and Toilet Preparations. 514 pp. \$12.25 postpaid.

9. THE ESSENTIAL OILS.

By Ernest Guenther, Ph.D. This monumental six-volume work is comprehensive, authentic. VOL. I. covers: Origin and Development of Essential Oil Industry, Chemistry and Function of Essential Oils in Plant Life, Products of Essential Oils. 448 pp., \$7.75 postpaid . . . VOL. II gives detailed data on several hundred of the more important constituents of essential oils. 852 pp. \$12.25 postpaid . . . VOL. III describes the oils of plant families Rutaceae (with special emphasis on citrus oils) and Labiate. 777 pp., \$12.25 postpaid . . . VOL. IV covers the individual oils in six plant families not covered in Vol. III. 752 pp., \$12.25 postpaid . . . VOL. V is of special importance to the flavor chemist. 507 pp., \$12.25 postpaid . . . VOL. VI, the final volume, is of interest to the pharmaceutical, flavor, and perfume industries. Features wintergreen, sweet birch, valerian, mustard, onion, hops, etc. Also deals with pine oils and turpentine. Includes table showing the taxonomic classification of all the essential oils described in all six volumes. 481 pp., \$12.25 postpaid.

MOORE PUBLISHING CO., INC., Book Div.,
48 W. 38th St., New York 18, N. Y.

The Numbers I have encircled below indicate the books I want:

1 2 3 4 5 6 7 8 9

I enclose check or money order for \$.....

NAME FIRM

ADDRESS POSITION

CITY ZONE STATE

DR. THOMAS H. VAUGHN, vice-president of the Colgate-Palmolive Co. in charge of research and develop-



Dr. Thomas H. Vaughn

ment, presided over the Technical Section of the First International Detergent Congress at the Sorbonne, France.

F. O. ROBITSCHKE has been named manager of Colgate-Palmolive Co.'s soap sales merchandising department. He will also continue as merchandising brand manager for Ajax Cleanser.

MORRIS J. WARREN and RALPH A. PENTZ, Jr., have been named to the Sales and Technical Department of American Alcolac Corp., Baltimore, Md.

PIERRE PARCHOIS, formerly with E. I. du Pont & Co. and Coty, Inc., has joined the staff of Tombarel Products Corp. as chief perfumer. He has been well known for many years in the perfume industry in this country as well as abroad.

JACK CURRY, president of Ogilvie Sisters, is on an extended business trip to the West Coast, where he is visiting Ogilvie Sisters accounts.

PIERRE HARANG, vice-president of Houbigant, was interviewed on television by Sidney Wood during the National Round Robin Tennis Championship matches. Mr. Harang won the senior doubles tournament with Harry Hopman in 1952. He is chairman of the Nassau Bowl Men's Tournament Committee.

LOUIS GAMPERT, vice-president of Felton Chemical Co., Inc., has accepted the chairmanship of the Cosmetics Committee of the Travelers Aid Society of New York.

HOWARD S. BROD has been appointed vice-president of Lee Limited,



Howard S. Brod

president JOHN ROOSEVELT has announced. Mr. Brod was formerly drug merchandising manager of *Life* magazine, marketing director of hair goods products at Lever Bros., and account executive of the Milton Biow Co.

J. V. PAGE, secretary and treasurer, Rayette, Inc., will be chairman of the Drug, Cosmetic and Soap Industry Conference to be held in conjunction with the 23d annual National Conference of the Controllers Institute of

America, October 10-13 at the Edgewater Beach Hotel, Chicago.

M. G. COUDERCHET of Charabot & Co., Inc. has returned from a visit to their principals in Grasse, Charabot & Cie.

ERNEST SHIFTAN, vice-president of van Ameringen-Haebler, was the subject of a biographical article in the Sao Paul *A Gazeta* when he, his wife and sons, visited Brazil during a recent pleasure trip.

VOVA BLINOFF, president of American Alcolac Corp., manufacturers of synthetic detergents, presided over the Mechanical Industry-Metallurgy Section of the recent First World Congress on Surface Active Agents at the Sorbonne, Paris, France. He was accompanied by SERGE GIER, senior vice-president and technical director of American Alcolac, who collaborated with the staff of Alcolac's affiliate Sinova of France in preparing technical papers presented at several sections of the Congress.

Obituary

Robert T. Vanderbilt

Robert T. Vanderbilt, 69, president and founder of the R. T. Vanderbilt Co., died August 13 in Bellevue Hospital, New York, from injuries suffered two days previously, when he was struck by a truck.

Robert F. Carson

Robert F. Carson, 57, midwestern sales representative of Dorothy Gray Ltd., died of a heart attack recently.

He joined the Lehn & Fink Products Corp. 33 years ago, and when Dorothy Gray became a subsidiary in 1926, joined its sales force.

Solve YOUR COLOR PROBLEM

.... IN THE QUICKEST POSSIBLE WAY

Use F.D.&C. CERTIFIED FOOD COLORS FOR FLAVORING, EXTRACTS, FLAVORS, AND ALL OTHER FOOD PRODUCTS

NOTE:

D. & C. and Ext. D. & C. Colors for Perfumes, Soaps, Shampoos, Bath Salts, Toilet Preparation Compounds, Waveset, and Brilliantines.

SAMPLES MATCHED

LEEBEN

CHEMICAL CO., INC.

AND ITS DIVISION, INTERSTATE COLOR CO.



140 W. BROADWAY, NEW YORK 13, N.Y. TEL. WORTH 2-4355-4356

Market Report

Oils, Aromatic Chemicals Active

TRADE in essential oils, aromatic chemicals and closely related articles held up in satisfactory volume over the past month. The low rate of activity in some lines was offset by continued good sales of a general line of summer items as well as the increasing popularity of a number of relatively new products in the consumer field.

Unlike last season there have been ample quantities of lemon oil to meet this summer's requirements of the beverage, food and confectionery trades but there has been little inclination on the part of sellers of domestic oil to push sales.

Aerosols Raise Consumption

Packaging for attractiveness as well as for convenience has gone a long way in broadening the demands for many finished products in which oils and aromatic chemicals are used. The wide use of aerosol containers has served to lift consumption of oils and chemicals for odor compounds. Soap plants have started to resume operations following the usual vacation closings or curtailed operations, and the period is approaching for pharmaceutical and proprietary manufacturers and makers of several other products to anticipate their fall and winter requirements. Preparation of year-end holiday goods should likewise lift sales of oils and aromatics.

Price-wise some oils and chemicals lost ground early last month but toward the close such items displayed increasing resistance toward further losses.

Mint oils softened by reason of new crop influences. Prices for spearmint suffered a rather sharp setback because of the early appearance of new crop oils and the reasonably good quantities of oil that had been carried over from last season. Early runs of new crop peppermint oil proved rather disappointing in quality.

Declines in coriander, caraway and clove bud oil were offset by persistent

strength in lemongrass, Formosan citronella and the camphor oils. With little hope for any improvement in the supply position in Central America, India will continue to be the major source of supply of lemongrass oil. *Ocotea cymbarum* remained in tight supply. Few offerings were coming out of Brazil and shipping prices were largely nominal.

Cedarwood Supply Tight

Very little cedarwood was available to buyers who normally depend upon spot supplies for requirements. The price of cedarwood oil has been gradually edging upward but, nevertheless, no early improvement in supplies is anticipated. The demand for cedarwood has been steadily increasing. Cheap offerings from various parts of Europe caused a rather sudden dip in oil coriander. While the local market recovered somewhat from the low price level of several weeks ago, the future price trend remains highly clouded because of continued low prices from abroad.

Heliotropine, safrol and anethol were among the firm spots in aromatic chemicals and due to higher costs several chemicals derived from oils moved higher in price including geraniol, citronellal, and citronellol, linalool, linalyl acetate, and several esters.

Aerosols Increase Lanolin Demand

The recent introduction of several hair preparations in aerosol containers has increased demand for lanolin. While stocks of lanolin were ample to take care of overall requirements, stepped-up demand by cosmetic and other consuming trades promise to place a greater pressure on the supply.

Citrates, caffeine and tartrates were moving in good volume. Caffeine was featured by a generally firm tone by the recent tightening in supplies in the world market as well as heavy seasonal demands in this country.

Competitive influences forced prices too close to production costs earlier this year; makers have been forced to boost prices on both the industrial as well as the U.S.P. grades of propylene glycol. The prices were moved up 1½ cents per pound for tancar, carlot, and less than carlot quantities.

Drop in Glycerine Stocks Seen

A further drop in glycerine stocks is expected for the month of July when official figures are completed. In fact, some trade observers believe that stocks will drop close to 50 million pounds. In one of the sharpest declines in a long time glycerine stocks fell to 57,420,000 pounds in June from 64,067,000 pounds on hand at the preceding month, May. Production dropped from 16,493,000 pounds in May to 15,690,000 pounds in June.

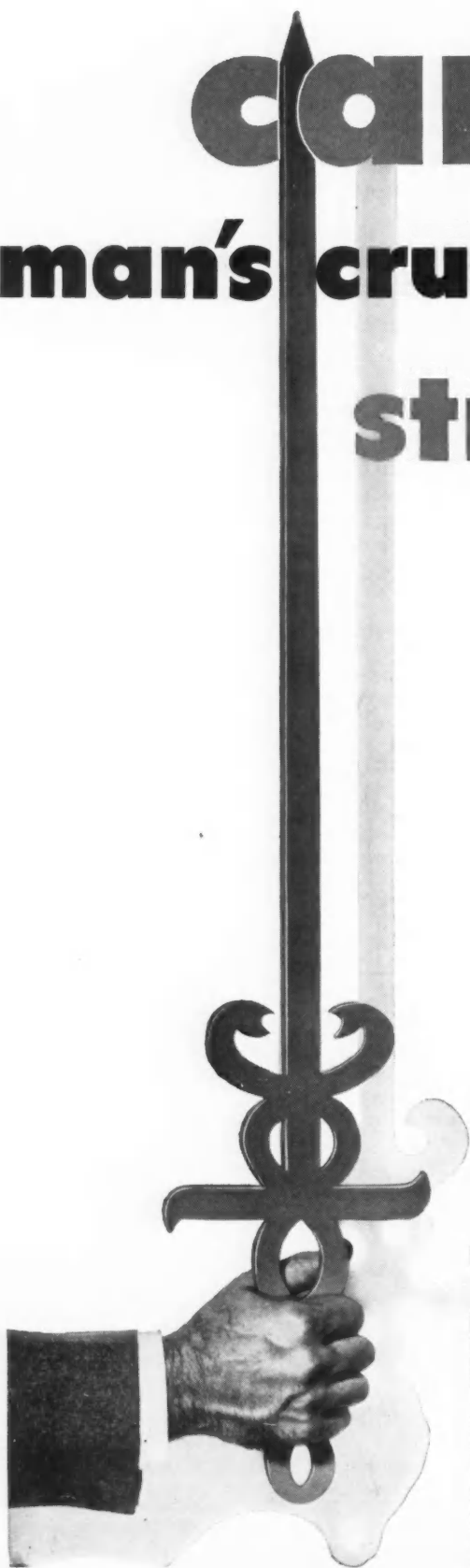
Vacation closing or curtailed operations at soap plants during July and early August will probably bring a further drop in output for those months, it is believed. The continued absence of imported glycerin in this market has likewise had a rather marked effect upon the available supply. Another major chemical manufacturer, Dow Chemical Co., is erecting a unit on its property in Texas for the production of synthetic glycerin. Shell Chemical Co. was the first to produce synthetic glycerine on a commercial scale in the U. S. Dow's plant is expected to have a capacity of around 35 to 40 million pounds a year.

Menthol scored sharp advances over the past month due largely to speculative influences and generally reduced stocks. The natural product from Brazil was the first to advance with synthetic laevo material following the rise. Consumer demand was generally sluggish over the past month but the period is approaching when large consumers should begin to anticipate their fall and winter requirements.

cancer

man's cruelest enemy

strike back



"CANCER" is an unpleasant word. It's easier not to think about it—to turn the page, to pass on.

MOST FOLKS who see this ad, will do just that . . .

YOU ARE DIFFERENT. The fact that you're still reading this proves it.

PERHAPS you have a special reason of your own for being interested in the fight *against* cancer. Cancer may have taken away someone whom you loved. It's not unlikely, for cancer strikes one out of five of us. The young. The old. The strong no less than the weak.

LAST YEAR, Americans contributed more than ever before to the American Cancer Society. But still not enough. Not nearly enough for the struggle that *must* be waged if this implacable enemy is to be conquered for good—if we are to make cancer, like so many once-dreaded diseases, only an unpleasant *memory* in man's long and victorious struggle against his ancient enemies.

THIS YEAR—please—give more generously than ever. For your help is *needed* more than ever. Won't you please clip the coupon *now*—?

American Cancer Society

GENTLEMEN:

☐ Please send me free information on cancer.

☐ Enclosed is my contribution of \$..... to the cancer crusade.

NAME.....

ADDRESS.....

CITY..... STATE.....

Simply address the envelope:
CANCER c/o Postmaster, Name of Your Town

PRICES IN THE NEW YORK MARKET

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Prices per lb. unless otherwise listed.

Almond Bit, FPA per lb.	3.25@	3.75
Sweet True	.55@	.90
Amyris	1.50@	1.75
Angelica Root	70.00@	110.00
Angelica Seed	56.00@	62.00
Anise, U.S.P.	3.50@	Nom'l
Apricot Kernel	.45@	.50
Bay	1.50@	2.00
Bergamot	11.00@	14.00
Artificial	3.25@	8.75
Birchtar, crude	1.80@	2.10
Birchtar, rectified	2.25@	2.75
Bois de Rose	4.10@	4.75
Cajeput—		
U.S.P.	2.55@	3.15
Tech.	2.10@	2.30
Calamus	15.00@	20.00
Camphor "White"	.35@	.45
Cananga, native	8.00@	8.90
Rectified	12.50@	13.25
Caraway	2.50@	2.75
Cardamon	38.00@	48.00
Cascarilla	35.00@	50.00
Cassia, rectified, U.S.P.	8.00@	Nom'l
Cedar leaf, U.S.P.	2.45@	3.00
Cedar Wood	1.10@	1.40
Celery	14.75@	18.00
Chamomile Hungarian	190.00@	280.00
Cinnamon—		
Bark	28.50@	40.00
Leaf	1.35@	3.00
Citronella, Ceylon	.90@	1.50
Java	1.10@	1.30
Java type	1.10@	1.50
Cloves, from buds	3.75@	4.25
Leaf	1.85@	2.10
Copaiba	1.90@	2.50
Coriander	14.50@	18.00
Croton	2.75@	3.50
Cumin	4.25@	5.25
Dill—		
Weed	4.35@	5.00
Seed, Indian	2.90@	4.00
Erigeron	5.50@	6.85
Eucalyptus—		
80-85%	.80@	1.25
70-75%	.65@	.95
Fennel, Sweet	2.40@	2.85
Garlic (oz.)	6.50@	9.00
Grapefruit	2.55@	3.25
Geranium, Algerian	9.25@	12.00
Bourbon	10.65@	12.50
Turkish	7.50@	9.50
Ginger	9.85@	13.25
Guaiac (Wood)	1.50@	1.90
Hemlock	2.25@	2.85
Jasmin (absolute)	225.00@	400.00
Juniper Berry	2.90@	3.75
Laurel leaf	9.85@	12.60
Lavandin	2.15@	3.00
Lavender, French—		
40-42% ester	5.00@	6.75
30-32% ester	2.60@	4.15
Spike	1.55@	2.00
Lemon, Calif.	6.35@	6.50
Italian	6.00@	7.80
Lemongrass, native	1.50@	2.00
Limes, distilled	4.75@	7.00
Expressed	7.75@	9.50
Linaloe wood	3.80@	4.25
Lovage (oz.)	6.25@	6.90
Mace	3.10@	4.00
Marjoram	3.00@	4.75
Neroli—		
Haitian	75.00@	100.00
French	200.00@	250.00
Nutmeg—		
East Indian	2.90@	3.50
West Indian	2.65@	3.65
Ocotea Cymbarum	1.00@	Nom'l
Olibanum	6.00@	8.00
Opopanax	30.00@	38.00
Orange, Florida	.65@	1.00
Italian	3.90@	6.00
Calif., exp.	.75@	1.25
Distilled	.75@	.80
Origanum	1.95@	2.25
Orris Root, concrete (oz.)	8.75@	9.50
Concrete, extra	14.00@	15.75
Patchouli	8.00@	9.75
Pennyroyal, European	1.65@	2.25
Peppermint natural	5.50@	5.75
Redistilled	6.00@	6.50
Petitgrain	3.25@	4.00
Pimento, Berry	4.10@	4.95
Leaf	2.45@	3.00
Pinus Sylvestris	3.00@	3.65
Pumilio	3.85@	4.90
Rose, Bulgaria (oz.)	50.00@	75.00
Synthetic, lb.	30.00@	35.00
Rosemary, Spanish	.70@	.90
Sage—		
Spanish	.95@	1.25
Dalmatian	5.90@	7.00
Sandalwood, N. F.	10.65@	11.25
Sassafras—		
Artificial	.90@	1.25
Snake root	30.00@	32.00
Spearmint	4.85@	5.40
Spruce	2.50@	2.80
Sweet birch, Southern	2.45@	3.25
Northern	4.35@	8.00
Tansy	8.00@	8.90
Thyme, red	1.80@	2.50
White	2.00@	3.25
Valerian, extra	82.50@	90.00
Vetiver—		
Bourbon	14.00@	17.50
Haitian	11.75@	19.00
Java	23.00@	35.00
Wintergreen, Southern	3.40@	15.00
Northern	6.40@	11.50
Wormseed	6.80@	7.50
Wormwood	5.25@	6.50
Ylang Ylang, Bourbon	17.00@	32.50
Haitian	12.85@	Nom'l

TERPENELESS OILS

Bay	3.25@	5.25
Bergamot	25.00@	32.00
Grapefruit	85.00@	97.00
Lavender	10.00@	14.25
Lemon	58.00@	70.00
Lime, ex.	80.00@	90.00
Distilled	55.00@	62.00
Orange sweet	75.00@	97.00
Peppermint	12.25@	13.65
Petitgrain	5.00@	6.25
Spearmint	10.25@	14.60

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	2.15@	2.50
Acetophenone	1.50@	1.80
Alcohol C 8	1.95@	2.25
C 9	12.50@	13.00
C 10	2.00@	2.30
C 11	13.85@	14.50



For the Highest Standard
in All Aromatics

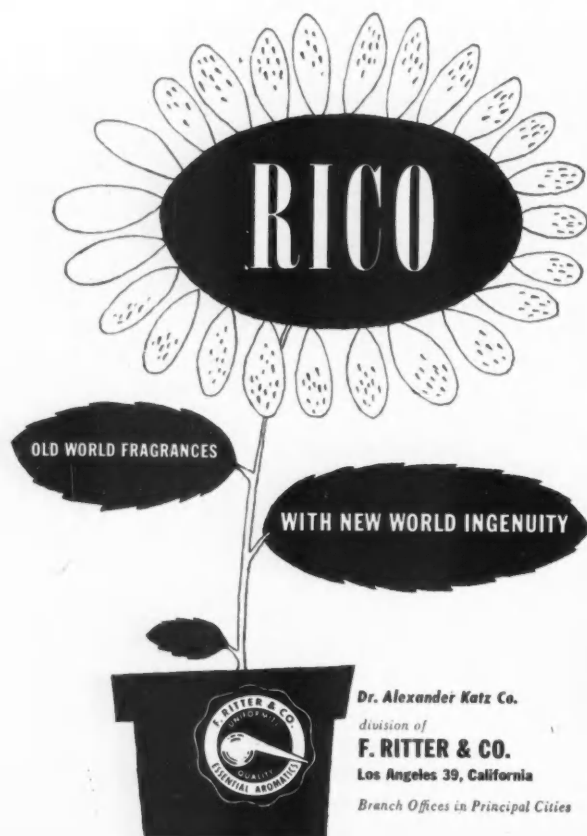


Our services encompass not only the supply of perfume and flavor materials but also authoritative counsel for their effective application in perfume, soaps, cosmetics and allied uses. We invite your inquiry.

STANDARD Aromatics Inc.

88 UNIVERSITY PLACE • NEW YORK 3, N.Y.

C 12	3.00@	3.65	Citronellyl Butyrate	6.00@	6.75	Iso-butyl Salicylate	2.15@	3.00
Aldehyde C 8	9.00@	11.00	Cuminic Aldehyde	3.25@	4.10	Iso-eugenol	4.20@	4.85
C 9	16.00@	17.10	Cyclonol	2.85@	3.15	Iso-safrol	2.10@	2.80
C 10	7.25@	7.75	Diethylphthalate .....	.45@	.51	Linalool	6.30@	6.35
C 11	19.00@	21.00	Dimethyl Anthranilate ...	5.75@	6.00	Linalyl, Acetate 92% ...	6.30@	6.35
C 12	15.00@	16.00	Diphenyl Methane	1.15@	1.30	70%	6.00@	6.10
C 14 (Peach so-called) ..	6.85@	7.50	Diphenyl Oxide .....	.60@	.75	98%	7.05@	7.40
C 16 (Strawberry so-called) ..	5.85@	6.20	Ethyl Acetate .....	.30@	.35	Linalyl Formate	12.00@	12.85
Amyl Acetate .....	.60@	.70	Ethyl Benzoate .....	.85@	.90	Linalyl Propionate	14.60@	15.00
Amyl Butyrate	1.00@	1.25	Ethyl Butyrate .....	.85@	.95	Menthol—		
Amylcinnamic Aldehyde ..	1.95@	2.25	Ethyl Capronate	2.40@	2.85	Brazilian	8.50@	8.65
Amyl Formate	1.40@	1.65	Ethyl Cinnamate	3.40@	3.65	Japanese	12.00@	14.00
Amyl Phenylacetate	4.00@	4.35	Ethyl Formate .....	.70@	.80	Synthetic, racemic	5.40@	5.45
Amyl Propionate	1.30@	1.60	Ethyl Phenylacetate	1.20@	1.35	Laevo	8.25@	8.50
Amyl Salicylate	1.00@	1.25	Ethyl Propionate .....	.90@	1.00	Methyl Anthranilate	2.60@	2.80
Amyl Valerate	1.95@	2.40	Ethyl Salicylate	2.35@	2.65	Methyl Anthranilate extra ..	2.75@	3.10
Anethol	1.20@	1.35	Ethyl Vanillin	6.75@	7.30	Methyl Benzoate .....	.60@	1.00
Anisic Aldehyde	2.55@	2.80	Eucalyptol	1.45@	1.80	Methyl Cinnamate	1.65@	2.00
Anisyl Acetate	6.00@	6.75	Eugenol	2.80@	3.75	Methyl Heptenone	5.50@	5.90
Benzyl Acetate .....	.75@	.85	Geraniol—			Methyl Heptene Carbonate ..	35.00@	40.00
Benzyl Alcohol .....	.75@	.90	Standard .....	.80@	1.90	Methyl Naphthyl Ketone ..	4.25@	4.60
Benzyl Benzoate .....	.75@	.95	Extra	2.00@	2.75	Methyl Phenylacetate	1.10@	1.75
Benzyl Butyrate	1.75@	2.00	Geranyl Acetate	2.00@	2.50	Methyl Salicylate .....	.58@	.65
Benzyl Cinnamate	3.30@	3.85	Geranyl Butyrate	4.50@	4.95	Musk Ambrette	5.15@	5.30
Benzyl Formate	2.00@	2.35	Geranyl Formate	4.75@	5.20	Xylene	1.60@	1.75
Benzophenone	1.65@	2.15	Geranyl iso-valerate	8.00@	8.65	Neroline (ethyl ether) ...	2.50@	2.80
Benzyl-isoeugenol	9.00@	10.25	Guaiaac Wood Acetate ...	4.65@	5.00	Octyl Isobutrate	3.50@	4.20
Benzyl Propionate	1.60@	2.10	Heliotropin, dom	4.00@	4.80	Paracresyl Acetate	2.20@	2.75
Benzyl Salicylate	1.70@	2.25	Hydrotropic Aldehyde ...	5.90@	6.35	Paracresyl Methyl Ether ...	2.10@	2.75
Benzylidene Acetone	1.85@	2.50	Hydoxycitronellal	5.25@	6.00	Paracresyl Phenylacetate ...	4.60@	5.20
Bromstyrol	5.50@	6.25	Indol, C. P.	17.25@	19.00	Phenylacetaldehyde 50% ..	2.75@	3.25
Butyl Acetate, normal ...	.15@	.16	Ionones—			100%	4.10@	4.65
Butyl Butyrate	1.55@	1.80	Alpha	4.30@	7.00	Phenylacetic Acid	1.65@	2.25
Cinnamic Alcohol	2.75@	3.25	Beta	5.00@	8.75	Phenylethyl Acetate	1.60@	1.95
Cinnamic Aldehyde	1.20@	1.40	Iso-borneol	1.65@	1.80	Phenylethyl Alcohol	1.60@	1.80
Cinnamyl Acetate	3.65@	4.00	Iso-butyl Acetate .....	.85@	1.50	Phenylethyl Butyrate	4.00@	4.50
Citral, C. P.	4.00@	4.25	Iso-butyl Benzoate	1.25@	1.80	Phenylethyl Propionate ..	3.40@	4.00
Citronellol	2.55@	2.85				Phenylethyl Salicylate ...	4.35@	4.80
Citronellyl Acetate	3.25@	3.50						



RICO

OLD WORLD FRAGRANCES

WITH NEW WORLD INGENUITY

F. RITTER & CO.
division of
F. RITTER & CO.
Los Angeles 39, California
Branch Offices in Principal Cities

WANT A BEST SELLER?....

Our chemists have a wealth of experience in all types of odor and perfume problems. Write or call our distributors for discussion of any problem whether it be improving an old product or developing a new one into a best seller.



NATURAL FLORAL
PRODUCTS
ESSENTIAL OILS

PERFUME
COMPOUNDS
and SPECIALTIES

INDUSTRIAL
PERFUMES
and DEODORANTS

JEAN ROURE-PIERRE ZILLER—
BRUNO COURT S.A.
Grasse, France

Sole Distributors
ROUBECHÉZ, INC.

NEW YORK 3, N. Y., 8 East 12th Street
CHICAGO 5, ILL., 701 South La Salle Street
TORONTO 18, ONT., CANADA, R. M. Ferguson & Co.
81 Dunedin Drive

Phenylethyl Valerianate .	4.90@	5.25
Phenylpropyl Acetate . . .	3.30@	3.75
Phenylpropyl Alcohol . . .	2.65@	3.30
Safrol	1.40@	1.75
Scatol (oz.)	2.75@	3.25
Styrollyl Acetate	1.65@	2.25
Thymol, crystals	2.85@	3.25
Vanillin, eugenol	6.50@	7.25
(Guaiacol)	3.00@	3.25
Lignin	3.00@	3.25
Vetiver Acetate	40.00@	45.00
Violet Ketone Alpha	7.90@	8.40
Yara Yara (Methyl ether)	2.40@	2.75

BEANS

Vanilla beans—		
Bourbon	10.50@	11.00
Mexican, cut	9.50@	10.00
Mexican, whole	10.25@	11.00
Tahiti	10.25@	10.40
Tonka Beans Surinam	1.05@	1.30
Angostura	1.65@	1.80

SUNDRIES AND DRUGS

Acetone . . . . .	.10@	.12
Ambergris, ounce	8.00@	16.50
Balsam, Copaiba . . . . .	.90@	1.00
Canada fir, gal.	33.00@	35.00
Peru	1.38@	1.60
Beeswax, bleached, pure		
U.S.P. . . . .	.72@	.77
Yellow, refined . . . . .	.60@	.65
Bismuth, subnitrate	2.65@	
Borax, crystals, carlot ton	67.25@	91.75
Boric Acid pwd. U.S.P.,		
ton	129.25@	153.75

Caffeine, anhydrous	3.10@	3.15
Calcium, Phosphate . . . . .	.07 $\frac{3}{4}$ @	.08 $\frac{1}{4}$
Phosphate, tri-basic . . . .	.07 $\frac{3}{8}$ @	.08
Camphor, pwd., domestic . .	.54@	.56
Castoreum, nat., cans	5.25@	20.00
Cetyl, Alcohol, extra . . . .	.80@	1.15
Chalk, precip. bags, clts . .	.02 $\frac{7}{8}$ @	.03
Cherry Laurel Water, jug,		
gal.	1.25@	Nom'l
Citric Acid Anhydrous . . . .	.28 $\frac{3}{4}$ @	.31 $\frac{1}{4}$
Civet, ounce	9.00@	13.85
Cocoa butter	1.16@	1.17
Cyclohexanol (Hexalin) . . .	.34 $\frac{1}{2}$ @	.35
Fuller's Earth Mines on . . .	27.00@	30.00
Glycerin, C. P. . . . .	.29 $\frac{1}{2}$ @	.30
Soap Lye, crude . . . . .	.21@	.22
Gum Arabic, white pwd. . . .	.40@	.45
Amber . . . . .	.19@	.20
Gum Benzoin, Siam	3.75@	3.85
Sumatra . . . . .	.38@	.42
Gum Galbanum	1.25@	1.50
Gum karaya, pwd. . . . .	.25@	.38
Gum Myrrh . . . . .	.40@	.42
Henna, pwd. . . . .	.25@	.26
Kaolin . . . . .	.05@	.07
Labdanum	1.00@	1.85
Lanolin, cosmetic . . . . .	.33@	.35
Anhydrous . . . . .	.30@	.32
Magnesium, carbonate . . . .	.11 $\frac{1}{4}$ @	.14
Stearate . . . . .	.38@	.43
Musk, ounce	65.00@	Nom'l
Olibanum, tears . . . . .	.26@	.28
Siftings . . . . .	.16@	.18
Orange Flower Water, gal. . .	1.75@	2.25
Orris Root, Italian . . . . .	.28@	.45
Paraffin, fully ref. 122-124	.08 $\frac{3}{8}$ @	.08 $\frac{3}{8}$
Peroxide (hydrogen U.S.P.)		
bbls. . . . .	.03 $\frac{3}{4}$ @	.05
Petrolatum, snow white . . .	.07 $\frac{1}{8}$ @	.09 $\frac{1}{4}$
Propyleneglycol—U.S.P.,		
drums . . . . .	.16 $\frac{1}{4}$ @	.17 $\frac{1}{4}$

Quince Seed	2.00@	2.50
Rice Starch . . . . .	.15 $\frac{1}{2}$ @	.16
Rose Flower, pale . . . . .	.65@	.90
Rose Water, jug (gallon) . .	1.25@	1.85
Rosin (gum), M. per cwt. . .	8.45@	8.50
Salicylic Acid U.S.P. . . . .	.48@	.53
Saponin No. 1	2.75@	2.80
Silicate, 40° drums, works,		
100 pounds	1.70@	2.30
Sodium Carb.		
58% light, 100 pounds . . .	2.75@	4.52
Hydroxide, 76% solid, . . .		
100 pounds	4.80@	4.90
Spermaceti . . . . .	.26 $\frac{1}{2}$ @	.30
Styrax Asiatic . . . . .	.90@	.98
Tartaric Acid (250 lb.		
drums) . . . . .	.37@	.41
Tragacanth, No. 1	2.75@	3.20
Triethanolamine . . . . .	.23 $\frac{1}{4}$ @	.24 $\frac{1}{4}$
Zinc stearate, U.S.P. . . . .	.37@	.42
Oxide, U.S.P. . . . .	.16 $\frac{1}{4}$ @	.17 $\frac{1}{4}$

OILS AND FATS

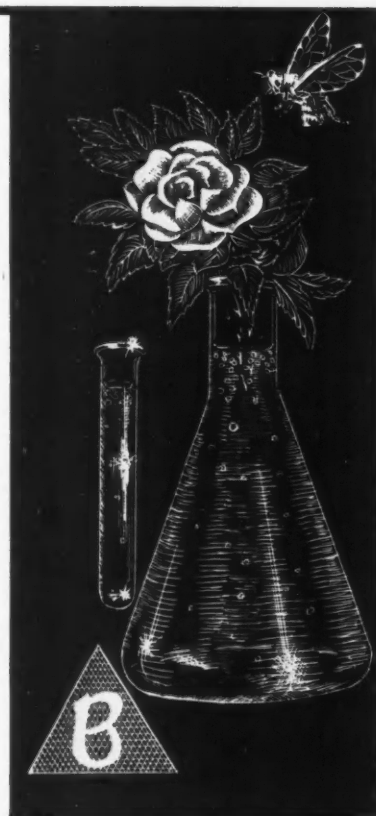
Castor, refined, drums . . .	.19 $\frac{1}{2}$ @	.20
Coconut, crude, Atlantic		
ports, tanks . . . . .	.13 $\frac{1}{2}$ @	.13 $\frac{3}{4}$
Refined, drums . . . . .	.22@	.23
Corn, crude, Midwest,		
mill, tanks . . . . .	.14 $\frac{1}{2}$ @	.15
Corn Oil, refined tanks . . .	.17 $\frac{3}{4}$ @	.18 $\frac{1}{4}$
Cottonseed, crude tanks . .	.14@	.14 $\frac{1}{2}$
Lard, Chicago . . . . .	.16 $\frac{1}{8}$ @	.17
Lard, Oil common,		
No. 1 drums . . . . .	.12@	.12 $\frac{1}{2}$
Olive, edible (gal.)	2.15@	2.20
Red Oil, single distilled		
drums . . . . .	.14 $\frac{3}{4}$ @	.16 $\frac{1}{2}$
Double distilled . . . . .	.17 $\frac{1}{4}$ @	.19 $\frac{1}{2}$
Stearic Acid		
Triple Pressed . . . . .	.14 $\frac{1}{2}$ @	.16 $\frac{1}{4}$
Double Pressed . . . . .	.12 $\frac{1}{4}$ @	.13
Tallow, acidless, drums . . .	.10 $\frac{1}{4}$ @	.10 $\frac{1}{2}$

Bases of
Uniform
Stability
Hold fragrance

W. J. BUSH & CO., Inc.
Essential Oils

19 West 44th STREET, NEW YORK 36, N. Y. • MURRAY HILL 7-5712

& Essential Oil Review



MOULDS

For
LIPSTICKS
MASCARA
SUPPOSITORIES
STYPTIC PENCILS

and
DIES
for
ROUGE
COMPACT POWDER

Write for Catalog

A. CAVALLA, INC. 163 WEST 18TH STREET, NEW YORK 11, N.Y.

MOULDS

LIPSTICK - COLOGNE - DEODORANT
STYPTIC PENCILS - MASCARA
SUPPOSITORIES

PROGRESSIVE LABELING MACHINE, Inc.
137 West 22nd St., New York 11, N. Y.

ROUGE COMPACT POWDER
PUNCHES FOR TABLETS
also
FOOT & POWER PRESSES FURNISHED

DIES

Aromatic Chemicals

FOR PERFUMERY AND FLAVORS

Iso Propyl Quinoline • Isobutyl Quinoline
Ethyl Anthranilate • Butyl Anthranilate
Skatol
Linalyl Anthranilate • Linalyl Isobutyrate

FAIRMOUNT

CHEMICAL CO., INC.

600 Ferry Street Newark 5, N. J.



CONSOLIDATED

Established 1858 **FRUIT JAR CO.**
NEW BRUNSWICK, NEW JERSEY

SHEET METAL GOODS : SPOUTS : SPRINKLER TOPS : DOSE CAPS



- PURE WHITE
- EXTRA QUALITY
- ABSOLUTELY PURE
- ABOVE U.S.P. STANDARDS

• Samples will gladly be sent on request—at no obligation

Serving the Trade for 102 Years

THEODOR LEONHARD WAX CO., INC.
HALEDON, PATERSON NEW JERSEY
Western Distributor: A. C. Drury & Co., 219 E. North Water St., Chicago, Ill.

FIFTH AVENUE PROTECTIVE ASSOCIATION

142 Lexington Ave. Our Own Building
New York 16, N. Y.

Representing over 300 "National Organizations"
Personal Collections
A "Free Demand" that collects
"49 YEARS YOUNG"
"Collections Everywhere"

Use LABELS & SEALS ...

FAITHFUL SERVICE FOR OVER SIXTY YEARS

JOHN HORN

for greater sales appeal

METAL • EMBOSSED
ENGRAVED
DIE STAMPING FOR BOXMAKERS

JOHN HORN 835-839 TENTH AVE., NEW YORK 19, N.Y.
DIE STAMPING ENGRAVING EMBOSHING
Telephone COLUMBUS 5-5600 ★ Cable Address HORNLABELS NEW YORK

CLASSIFIED ADVERTISEMENTS

Rates per line, per insertion: Business Opportunities, \$1.00; Situations Wanted and Help Wanted, 50c. Please send check with copy.

BUSINESS OPPORTUNITIES

ESSENTIAL OIL DISTILLERS, ESTABLISHED IN LONDON FOR 30 YEARS, WORLD-WIDE CONNECTIONS, INVITE ENQUIRIES FROM USERS OR IMPORTERS OF FINEST ESSENTIAL OILS, AROMATICS, FLAVORS, PERFUME BASES AND BY-PRODUCTS. WRITE J. L. HINDLE, STANDARD SYNTHETICS LTD, 76 GLENTHAM ROAD, LONDON, S.W. 13 ENGLAND.

Perfumer Merchant established in Mexico City 25 years ago, solicits an exclusive representation of an important Essences Oils Firm. Enough guaranty and own capital to do profitable investment.—Ensueno., S. de R. L., Appdo. 1405., Mexico, D. F.

SITUATIONS WANTED

Perfumer of high renomee is available. Metropolitan area only. Write Box 3047, American Perfumer, 48 West 38th St., New York 18, N. Y.

Chemist-salesman. Experience includes originating products, cosmetics, perfumes. Seventeen years of selling essential oils, fine aromatic chemicals and specialties. Write Box 3048, American Perfumer, 48 West 38th St., New York 18, N. Y.

**talk to the man
who wants to buy!**

• There's no better prospect than the man who wants to buy your product or service. American Perfumer readers are preconditioned . . . looking for products they need—your products!

• Use the classified columns of the American Perfumer to reach them. See what a wallop a little space can pack.

• **Classified Dept.**

THE AMERICAN PERFUMER

9 East 38th St.

New York 16, N.Y.

IF YOU'RE A SUBSCRIBER

to American Perfumer, and you are moving, please let us know. Send us your NEW and Old address, and allow six weeks for the change. Address all subscription mail to:

AMERICAN PERFUMER

CIRCULATION DEPARTMENT

48 WEST 38th STREET NEW YORK 18, N.Y.



Miniature Perfume Bottles

from 1/8 dram to 1/2 oz.

HANDMADE GLASS NOVELTIES
MINIATURE GLASS FUNNELS
SPECIAL ORDER WORK

KENBURY GLASS WORKS

132 W. 14th Street New York 11, N. Y.



PROFESSIONAL SERVICE

"L'ART de la PARFUMERIE par EXCELLENCE"
And Its Applications to the Industry

DR. JEAN JACQUES MARTINAT

PERFUMER-CHEMIST CONSULTANT

Perfumes
Cosmetics
Toilet Articles
Soaps
Flavors

Creations of Highly Original Perfumes
Duplications of Most Difficult Fragrances
Unique Kind of Professional Services.

Kindly Inquire

333 WEST 52ND STREET, NEW YORK 19, N. Y.
TEL. PLAZA 7-3861

Specialists in analysis

cosmetics, essential oils, drugs

Ask for Estimates—Quotations—No obligation

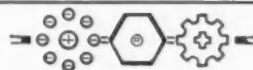
Labs: 16 East 34th St.

New York 16, N.Y.

Telephone Murray Hill 3-6368

Seil, Putt & Rusby, Inc.

analytical, consulting, research chemists
Established 1921



RESEARCH LABORATORY SERVICES

Cosmetic Formulation and Improvement
Skin irritation studies. Completely equipped laboratories for animal work. Analytical determinations. Soap and syndet evaluations.

Write for
Our Booklet
"Cosmetics"



LEBERCO LABORATORIES

Irritation Studies—Sensitivity Tests
Toxicity and Safety Tests on
Shampoos—Cold Wave Lotions—All Cosmetics
Pharmaceutical and Cosmetic Research
Hormone Assays—Bacteriological Studies

127 HAWTHORNE ST.,

ROSELLE PARK, N. J.

ALBERT B. PACINI, Sc.D.

Cosmetic Consultant

Processes

Products

208 N. Maple Ave., East Orange, N. J.

Tel.: ORANGE 2-7806

Carl N. Andersen, PhD

Consulting Chemist

Cosmetics, Soaps and Synthetic Detergents

52 Vanderbilt Ave.—Room 2008,
New York 17, N.Y.
Phone: MU. 9-0789

Laboratory: Briarcliff Manor,
N.Y.
Phone: Briarcliff 6-1550

INDEX TO ADVERTISERS

Aceto Chemical Co., Inc.	—	Givaudan-Delawanna, Inc.	Insert 192B-192C	Perry Bros., Inc.	228
Adrian & Cie	—	Goldschmidt Corp.	192A	Polak & Schwarz, Inc.	206
American Aromatics, Inc.	—	Halby Products	—	Polak's Frutal Works	211
American Cholesterol Products, Inc.	190-191	Hanlin Manufacturing Co.	224	Precision Valve Corp.	—
Anderson, Carl N.	239	Hazel-Atlas Glass Co.	—	Progressive Labeling Machine, Inc.	238
Ansbacher & Siegle	220	Heyden Chemical Corp.	—	Reheis Co.	—
Aromatic Products, Inc.	—	Horn, John	238	Rhodia, Inc.	208B, 216
Avon Products, Inc.	170	Ising Corp., C. E.	—	Richford Corp.	164
Bertrand Freres	—	Katz, Dr. Alexander & Co., Div. of F. Ritter & Co.	218, 236	Ritter & Co., F.	218, 236
Bopf-Whittam Corp.	—	Kelton Cosmetic Co.	210	Robertet, Inc., P.	—
Bush & Co., Inc., W. J.	161, 237	Kenbury Glass Works	239	Roubeshez, Inc.	236
Cameo Die & Label Co.	224	Kolmar Laboratories	—	Roure-Dupont, Inc.	196
Camilli, Albert & LaLoue, Inc.	240	Lanitis Bros., Ltd.	217	Schimmel & Co., Inc.	—
Carr-Lowrey Glass Co.	172	Lautier Fils, Inc.	—	Seovill Mfg., Co.	168
Cavalla, Inc., A.	238	Leberco Laboratories	239	Seaplant Chemical Corp.	218
Chaley, Ph. Inc.	—	Leeben Chemical Co., Inc.	232	Seil, Putt & Rusby, Inc.	239
Charabot & Co., Inc.	—	Leonhard Wax Co., Inc., Theodor ..	238	Sheffield Tube Corp.	Insert 208A
Chemo Puro Mfg., Corp.	—	Leuders & Co., George	—	Shulton, Inc.	165
Chiris Co., Inc., Antoine	169	Martinat, Jean Jacques, Dr.	239	Sindar Corp.	—
Classified Advertisements	239	Maryland Glass Corp.	—	Snell, Foster D., Inc.	239
Consolidated Fruit & Jar Co.	238	Maywood Chemical Works	—	Standard Aromatics, Inc.	235
Cosmetics, Inc.	—	Merory Flavors, Inc.	—	Stepan Chemical Co.	176
DeLaire Aromatics	—	Morningstar, Nicol, Inc.	195	Sunkist Growers	167
Dodge & Olcott, Inc.	166	N. V. Chemische Fabriek "Naarden" ..	—	Sun Tube Corp.	Inside Back Cover
Dow Chemical Co., The	—	Neumann, Buslee & Wolfe, Inc.	218	Synfleur Scientific Laboratories, Inc.	171
Dreyer, Inc., P. R.	—	Norda Essential Oil & Chemical Co., Inc.	193	Syntomatic Corp.	214
Esrolko, Inc.	—	Orbis Products Corp.	174	Tombarel Products Corp.	212
Evans Chemetics	—	Owens-Illinois Glass Co.	—	Ungerer & Co.	Inside Front Cover
Fairmount Chemical Co., Inc.	238	Pacini, Albert B.	239	Van Ameringen-Haebler, Inc.	200-201
Felton Chemical Co., Inc.	162	Parento, Inc., Compagnie	—	Vanderbilt Co., R. T.	—
Fifth Ave. Protective Assoc.	238	Parsons-Plymouth, M. W.	—	Van Dyk & Co.	—
Fine Aromatics, Inc.	—	Penick & Co., S. B.	—	Van Pell Chemical & Supply Corp.	—
Firmenich & Co.	Back Cover	Pennsylvania Refining Co.	210	Verley & Co., Albert Insert 224A-224B	—
Florasynth Laboratories, Inc.	—			Verona Chemical Co.	199
Foxon Co., The	230			Westbrook Lanolin Co.	—
French, Benjamin, Inc.	222			Whittaker, Clark & Daniels	230
Fritzsche Brothers, Inc.	Insert Facing 168-169			Will & Baumer Candle Co., The	220
				Wirz, Inc., A. H.	Front Cover



Rose

14 E. 48th St., New York

CAMILLI, ALBERT & LALOUE, S. A.
Grasse, France Established 1830

"MAXIMAROME"

A
"Natural"

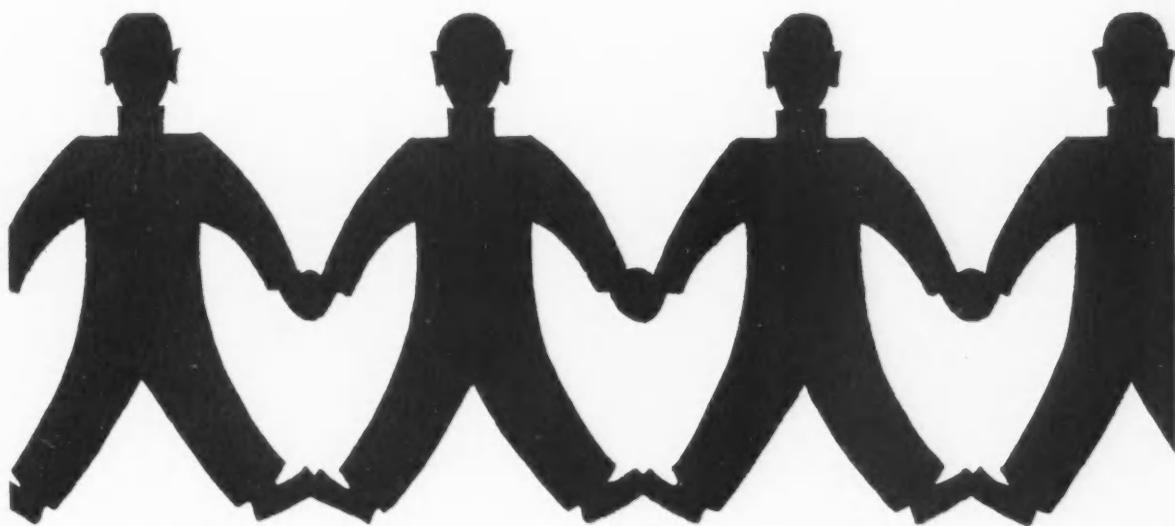
PLAZA 3-6070

CAMILLI, ALBERT & LALOUE, INC.

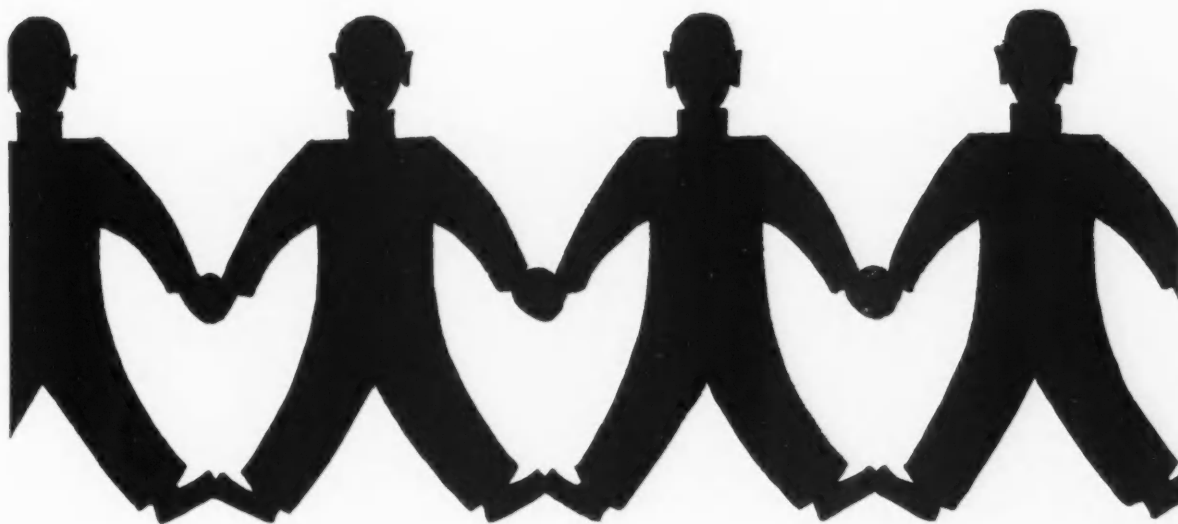


Jasmin

Cable address: Maximarome



Perfect reproduction of your art work on every tube, when you



package your product in Sun Tubes!

SunTube
CORPORATION



SUN TUBE CORPORATION, HILLSIDE, NEW JERSEY, Waverly 3-0400

St. Louis 1, Missouri: Marvin Yates Co., Arcade Building
Cincinnati 8, Ohio: Ralph H. Auch, 3449 Custer Road
New Orleans 19, Louisiana: R. P. Anderson Co.,
923 N. Solomon Pl.
Houston 19, Texas: R. P. Anderson Co., 5643 Overbrook Lane

Dallas 2, Texas: R. P. Anderson Co., 1122 Texas Bank Building
West Coast: Wm. J. Steepker, 301 E. Colorado, Arcadia, California
Canada: Sun Tube Corp., 145 Spruce Street, Ottawa, Ontario
Mexico: Tubos de Estano, S. A. de C. V.,
174 Oriente No. 267, Colonia Montezuma, Mexico, D. F.



Ylang
Synthetic CNC

A new reproduction by Firmenich

To the distinguished list of Firmenich reproductions is now added Ylang Synthetic CNC
the result of Firmenich research and reconstruction of its natural counterpart.
Because of the faithfulness of its reproduction and its controlled and improved solubility, Ylang
Synthetic CNC is especially interesting for cologne and toilet water
compounds. It may be used in whole, or in part, in replacement of the natural
product. A sample will be supplied on request.

FIRMENICH & CIE.
SUCCESSION DE
CHUIT, NAFF & CIE.
GENÈVE

FIRMENICH INCORPORATED
250 WEST 18TH STREET • NEW YORK 11

CHICAGO OFFICE: 612 NORTH MICHIGAN AVE.
FIRMENICH OF CANADA, LIMITED, 346 WALLACE AVE. • TORONTO
GENÈVE • PARIS • LONDON

